

PHOTOGRAPH BY & COLOR CO. N.Y.

"THE SOUTH FRONT AND CLOISTER OF THE CATHEDRAL OF ST. DIÉ."  
"WHERE WALDSEEMÜLLER'S BOOK WAS PRINTED."

UNITED STATES CATHOLIC HISTORICAL SOCIETY  
MONOGRAPH IV *ic v*

THE  
COSMOGRAPHIÆ  
INTRODUCTIO

OF  
MARTIN WALDSEEMÜLLER  
IN FACSIMILE

Followed by the Four Voyages of Amerigo Vespucci,  
with their Translation into English ;

to which are added

Waldseemüller's Two World Maps of 1507  
With an Introduction

BY

PROF. JOSEPH FISCHER, S.J., AND PROF. FRANZ VON WIESER

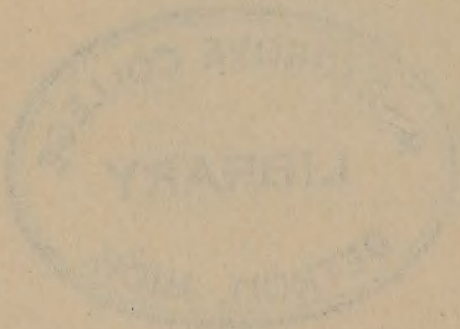
EDITED BY

PROF. CHARLES GEORGE HERBERMANN, PH.D.

NEW YORK  
PUBLISHED BY  
THE UNITED STATES CATHOLIC  
HISTORICAL SOCIETY  
1907



COPYRIGHT, 1908,  
BY  
THE UNITED STATES CATHOLIC  
HISTORICAL SOCIETY



## LIST OF OFFICERS

### *Honorary President*

MOST REV. JOHN M. FARLEY, D.D.

### *President*

CHARLES GEORGE HERBERMANN, Ph.D., LL.D., Lit.D.

### *Vice-President*

STEPHEN FARRELLY

### *Treasurer*

RICHARD S. TREACY, A.B.

### *Recording Secretary*

JOHN E. CAHALAN, A.M.

### *Corresponding Secretary*

JOSEPH H. FARGIS, LL.B.

### *Librarian*

REV. M. J. CONSIDINE

### *Trustees*

RT. REV. MGR. JOSEPH F. MOONEY, V.G.

RT. REV. MGR. JAMES H. MCGEAN, LL.D.

HENRY HEIDE                      HUGH KELLY, LL.D.

PETER CONDON, LL.B.    THOMAS S. O'BRIEN, LL.D.

THOMAS F. MEEHAN, A.M.

### *Councillors*

HON. EDWARD B. AMEND, LL.D.    WILLIAM R. KING

REV. THOMAS J. CAMPBELL, S.J.

EDWARD J. MCGUIRE, LL.B.

REV. JOHN J. BURKE, C.S.P.

REV. JOSEPH F. DELANY, D.D.



## P R E F A C E

FOUR hundred years ago, in the little town of St. Dié in Lorraine, the geographer, Martin Waldseemüller, published two world maps, one for use as a globe, the other a flat projection of the then known world. These two maps were the first that gave to the new world the name "America," which it bears to this day. At the same time, Waldseemüller published a pamphlet of forty pages whose purpose was to explain the world map and its various features, its bearings on geographical sides, and its record of new discoveries. Here the author set forth his reason for calling the newly found continent "America." The pamphlet bore the title, *Cosmographiæ Introductio* or Introduction to Cosmography. By cosmography was meant geography, but Waldseemüller's little work has special reference to the world map published at the same time. As part of the *Cosmographiæ Introductio* appeared a Latin version of the four voyages of Amerigo Vespucci. It was to serve as a justification for calling the new world "America."

## *Preface*

The United States Catholic Historical Society, desirous of commemorating the four-hundredth anniversary of this notable event, publishes herewith a little memorial volume consisting:

FIRST. Of an excellent facsimile reprint of the 1507 edition of the *Cosmographiæ Introductio*, which is one of the treasures of the University Library of Strasburg. This also includes the four voyages of Amerigo Vespucci, translated into Latin by Jean Basin of Sendacour. This copy belonged in 1510 to the celebrated humanist Beatus Rhenanus of Schlettstadt as appears from his name at the foot of the title-page.

SECOND. Of the translation of these two documents into English; the *Cosmographiæ Introductio* being translated by Prof. Edward Burke and the *Four Voyages* of Amerigo Vespucci by Dr. Mario E. Cosenza;

THIRD. Of an excellent reduced facsimile of Waldseemüller's map, 14x26 inches (the original is 8 feet long and 4½ feet high), from the only remaining copy of the map found in 1901 by Professor Joseph Fischer, S.J., at the castle of Wolfegg in Würtemberg;

FOURTH. Of a facsimile copy of the Waldseemüller globe, now in the Hauslab-Liechtenstein collection at Vienna which was identified by Gallois;

FIFTH. Of an introduction discussing the

## Preface

various problems raised by Waldseemüller's publications by Prof. Joseph Fischer, S.J., the discoverer of the Waldseemüller map, and Prof. F. von Wieser of the University of Innsbruck, whose authoritative scholarship on all questions touching Martin Waldseemüller is recognized everywhere.

It is needless to say a word on the appropriateness of this publication at the present time. Besides its sentimental value, the publication will offer the reader a copy of the oldest map cut in wood, and probably of the oldest wall map ever published. The map will exhibit a picture of the world such as it was known four hundred years ago and, we may add, substantially such as it was known to Columbus himself, while the facsimile of the pamphlet will present us with a piece of early Strasburg black letter.

The Editor desires to express his warm recognition of the courtesies of Professors Fischer, S.J., and von Wieser in preparing their authoritative exposition of the history and significance of the *Cosmographiæ Introductio* and the accompanying documents. He also returns his sincere thanks to Dr. Leigh Harrison Hunt, Professors William Fox, August Rupp, and Dr. J. Vincent Crowne of the College of the City of New York for valuable assistance given in the preparation of this work.



# INTRODUCTION

BY PROF. JOS. FISCHER, S.J.,  
AND PROF. FR. V. WIESER, PH.D.

FOUR hundred years ago, on the 25th of April, 1507, there appeared in a little out-of-the-way Vosges village, St. Dié, in Lorraine, a little book destined to attain great historical importance—a book which later became of the utmost interest, particularly for America. The title of the book is as follows:

COSMOGRAPHIÆ INTRODVCTIO,  
CVM QVIBVSDAM GEOMETRIÆ AC  
ASTRONOMIÆ PRINCIPIIS AD EAM  
REM NECESSARIIS.

Insuper quatuor Americi Vespucii Navigationes.

Universalis Cosmographiæ descriptio tam in solido quam plano, eis etiam insertis, quæ Ptholomæo ignota a nuperis reperta sunt.

As appears from the title, this book consists of two distinct parts: a geographical introduction (*Cosmographiæ Introductio*), and an account of the four voyages of Amerigo Vespucci (*Quatuor Americi Vespucii Navigationes*). Moreover,

## *Introduction*

we see that two maps belong to the book—a globe and a plane projection, on which, in addition to what was already known to Ptolemy, all newly discovered lands are laid down.

This work in its four parts was destined to satisfy, in great measure, the lively interest evinced by all classes of that day in geographical research, and particularly in the marvelous accounts of the discoveries recently made by the Spanish and Portuguese.

The publication met with instant success, and in a few months several editions of the text were issued. The map, as Waldseemüller himself informs us in a later publication, attained in a short time a circulation of not less than a thousand copies.

So it came about that a proposal made in the text and carried out in the two maps, viz., that the newly discovered continent be called AMERICA, was at once generally adopted and prevailed despite later opposition.

On the four-hundredth anniversary of the christening of America, it seems right and proper to render more generally accessible in facsimile the four parts of the publication to which the New World owes its name.

The parts of the original publication of 1507 at present are scattered; they are bibliographical curiosities and accessible only to the select few.

## Introduction

Of the *Cosmographiæ Introductio*, printed at St. Dié, in 1507, omitting mention of later reprints,<sup>1</sup> we have two chief editions: one of the 25th of April, 1507 (*vii Kal. Maii*), and the other of the 29th of August, 1507 (*iiii Kal. Sept.*).<sup>2</sup> Of each of these editions there are two variants. In one Martinus Ilacomilus (the Græcized form of the name of Waldseemüller), and in the other the Gymnasium Vosagense are named as the editors. These variations appear in the dedication of the work to the Emperor Maximilian I:

1. *Divo Maximiliano Cæsari Augusto Martinus Ilacomilus fælicitatem optat.*

2. *Divo Maximiliano Cæsari semper Augusto Gynnasium (!) Vosagense non rudibus indoctisve artium humanitatis commentatoribus nunc exultans gloriam cun (!) fælici desiderat principatu.*

The Gymnasium Vosagense was composed of

<sup>1</sup> The Strasburg edition appeared in 1509, the undated Lyons edition about 1518.

<sup>2</sup> Detailed statements regarding the differences in the two editions and their readings may be found in the following: [M. D'Avezac], *Martin Hylacomylus Waltzemüller, ses ouvrages et ses collaborateurs*, Paris, 1867; H. Harrisse, *Bibliotheca Americana Vetustissima*, New York, 1866, and *Additions*, Paris, 1872; Ed. Meaume, *Recherches critiques et bibliographiques sur Améric Vespuce et ses Voyages* (Mémoires Soc. d'Archéologie Lorraine, 3<sup>e</sup> serie, t. xvi, Nancy, 1888; J. Boyd-Thacher, *The Continent of America, Its Discovery and Its Baptism*, New York, 1896; F. v. Wieser in his introduction to the facsimile edition of the *Cosmographiæ Introductio* in the collection, *Drucke und Holzschnitte des XV. und XVI. Jahrhunderts in getreuer Nachbildung*, Strasburg, T. H. Ed. Heitz, 1907.

## Introduction

a small group of humanists<sup>1</sup> which Canon Walter Ludd, secretary to Duke René II of Lorraine, had gathered about him, and which published his works in the printing-house erected there by Ludd himself.<sup>2</sup> Besides Walter Ludd, this literary circle counted among its most prominent members Nicholas Ludd, the nephew of Walter, Joh. Basinus Sendacurius, Philesius Ringmann, and Martin Waldseemüller. The last two, it is true, entered the service of the two Ludds<sup>3</sup> only as paid printers; but there can be no doubt that Waldseemüller and Ringmann were the most learned members of the *Gymnasium Vosagense*—those of the greatest literary attainments. The question now arises how to explain the discrepant statements of the two editions, the one of which ascribes to the *Gymnasium Vosagense*, the other to Waldseemüller alone, the editorship of the *Cosmographiæ Introductio*.

<sup>1</sup> The word *Gymnasium* should not here be interpreted as an educational institution. As to the various significations of the *Gymnasium Vosagense* see A. v. Humboldt, *Kritische Untersuchungen*, Berlin, 1852, ii, 363; D'Avezac, l.c., p. 11 sq.; C. Schmidt, *Histoire littéraire de l'Alsace*, Paris, 1879, ii, 111; L. Gallois, *Le Gymnase Vosgien* (Bulletin de la Société de géographie de l'Est 1900, p. 88 sq.).

<sup>2</sup> "*Officina mea literaria*;" by these words Ludd designates this printing-house in his letter of dedication which prefaces Philesius Ringmann's *Grammatica Figurata*, also printed at St. Dié.

<sup>3</sup> "*Domini mei*" the two Ludds are called by Waldseemüller in his letter to Amerbach, dated the 5th of April, 1507, published by C. Schmidt in his essay, *Mathias Ringmann Philesius* (Mémoires de la Soc. d'Archéologie Lorraine, 3<sup>e</sup> série, t. iii, Nancy, 1873, p. 227), and reproduced by Harris in *The Discovery of North America*, Paris, London, 1892, p. 441.

## Introduction

We know that Walter Ludd, the head of the Gymnasium Vosagense, had not only established, as previously mentioned, a printing office at St. Dié and was an author, but had also furnished the money for the publications produced by other members of the Gymnasium, and that in the present case he had moreover procured the necessary scientific material.<sup>1</sup>

As literary collaborators in the *Cosmographiæ Introductio* are to be mentioned Philesius Ringmann and Joh. Basinus Sendacurius. The former contributed two poems—a shorter dedicated to Emperor Maximilian I, and a longer intended for the reader. The latter furnished the Latin version of the four voyages of Amerigo Vespucci, and as a preface a decastich and a distich *ad lectorem*.

There can be no doubt, however, that Martinus Waldseemüller (Ilacomilus) must be recognized as the real publisher of the entire work; for not only did the treatise on cosmography originate from his pen, but the two maps going with the work were designed by him. Both parties, therefore, in a way had the right to pose as authors of the work. In view, however, of the fact that Martin Waldseemüller undertook the principal task, and that the work represents in all its scientifically significant parts

<sup>1</sup> See D'Avezac, l.c., p. 65.

## Introduction

his intellectual property, we consider it a point of honor to connect his name forever with the publication of the *Cosmographiæ Introductio*.

For this reason, also, we have chosen the reading of the edition of the 25th of April, 1507, containing his name and which must typographically be regarded as the *editio princeps*, for reproduction in our facsimile edition.

Martin Waldseemüller<sup>1</sup> was born between 1470–1475, probably at Radolfzell on Lake Constance. It is established by documentary evidence that his father had lived in Freiburg since 1480, at least, and that in 1490 he became a citizen of that city.<sup>2</sup> On December 7th of the same year, Martin was matriculated in the University of Freiburg: “*Martinus Waltzenmüller de Freiburg, Constantiensis diœcesis, septima decembris.*”<sup>3</sup>

It is clear that he studied theology, for later, in a memorial to Duke René of Lorraine, he calls himself “*clerc du diocèse de Costance.*” He

<sup>1</sup> He himself spells his German name, Waldseemüller, not Waltzenmüller; and its Græcized form adopted according to the humanists of the day, Hylacomilus, not Hylacomilus.

<sup>2</sup> See P. Albert—*Über die Herkunft Martin Walzenmüller's, genannt Hylacomylus.* (*Zeitschrift für die Geschichte des Oberrheins, N. F.*, xv, Karlsruhe, 1900, p. 510 sqq.)

<sup>3</sup> It was Alex. v. Humboldt (l.c., ii, 362) who first drew attention to this entry in the University of Freiburg, thereby proving that the author Hylacomilus, known from his earlier works, was identical with this Waltzenmüller. See the lately published book: *Die Matrikel der Universität Freiburg i. Br. 1460–1656*, by Prof. Dr. H. Mayer, Freiburg, 1907.

## Introduction

was therefore a clergyman in his native diocese of Constance. Subsequently, he became Canon at St. Dié, which position he occupied<sup>1</sup> until his death, about 1522. Probably Waldseemüller, as far back as 1505, was engaged at Strasburg, jointly with Philesius Ringmann, in the study of the geography and the maps of Ptolemy.<sup>2</sup> It is likely that before 1507 he also spent some time in Basel and collated in its libraries manuscripts for the proposed edition of Ptolemy. While there he became a friend of the printer Amerbach.<sup>3</sup> In 1507 we find both Waldseemüller and Ringmann in the printing establishment of Walter Ludd at St. Dié. There Waldseemüller displayed his many-sided activity. He was employed as a printer—in his letter to the Duke René, previously mentioned, he styles himself “*imprimeur*”—and together with other members of the Gymnasium Vosagense he prepared a new edition of Ptolemy. At the same time, he worked on various portions of the important work now engaging our attention.

We shall now proceed to examine more closely the several portions of the Waldseemüller publications of 1507.

<sup>1</sup> See Gallois, *Bulletin*, l.c., 221 sqq.

<sup>2</sup> See Ringmann's letter from Strasburg, dated August 1, 1505, in his edition, relative to the third expedition of Amerigo Vespucci, *De ora Antarctica, Argentinae* 1505.

<sup>3</sup> See Waldseemüller's letter to Amerbach, cited above, dated April 5, 1507.

# I

## THE OUTLINES OF COSMOGRAPHY

### *Cosmographiæ Introductio*

IN THE nine chapters of his *Cosmographiæ Introductio*, Waldseemüller treats the chief teachings of cosmography essentially according to traditional views.

In the introduction he discusses the principal theorems of geometry as far as they are needed for the understanding of geography; and he then proceeds minutely to define the globe, its circles, axes, zones, etc., its climata, its winds, its general divisions, the seas and islands, and the various distances on the surface of the globe.

Thrice in the text of the original (pp. 18, 25, and 30 of the facsimile edition), and on the inside of the double sheet whereon is the *Figura universalis* (facing p. 28 of facsimile edition), Waldseemüller makes mention of the new territories as described in Amerigo Vespucci's *Quatuor Navigationes*, and which he calls the fourth continent—*quarta orbis pars*. Twice he proposes to christen this newly found part of the globe *AMERICA* in honor of its supposed discoverer. By America, of course, he meant the South American continent of to-day.

## Outlines of Cosmography

The original words of the two passages above referred to run thus:

1. (p. 25) "*Quarta orbis pars (quam quia Americus invenit, Amerigen quasi Americi terram sive Americam nuncupare licet).*"

2. (p. 30) "*Quarta pars per Americum Vesputium (ut in sequentibus audietur) inventa est, quam non video, cur quis jure vetet, ab Americo inventore sagacis ingenii viro Amerigen quasi Americi terram sive Americam dicendam, cum et Europa et Asia a mulieribus sua sortita sint nomina.*"

Waldseemüller himself carried out this proposal in his publication of 1507, when he inscribed on both maps belonging to the *Cosmographiæ Introductio* the word *America* as the name of the newly discovered continent. Both maps are stated to belong to the work not only on the title-page of the book, but also in several passages of the text; in fact, Waldseemüller declares outright that the outlines of geography, called "*Cosmographiæ Introductio*," was but an explanatory text for his large map of the world,—"*Generale nostrum, pro cuius intelligentia hæc scribimus.*"<sup>1</sup>

<sup>1</sup> See p. 23 of this facsimile edition. The expression "*generale*" is also used elsewhere as synonymous with "Map of the World" and may be found in the letter of Waldseemüller to Amerbach, previously cited, and in the poem of dedication by Ringmann to the Emperor Maximilian I. (See l.c., p. 2.)

## II

### STORY OF THE FOUR VOYAGES OF AMERICO VESPUCCI

#### *Quatuor Americi Vespucii navigationes*

ON THE title-page of the second section, which contains the account of the four voyages of Amerigo Vespucci,<sup>1</sup> the translator states that he had done it into Latin from the French,—“de vulgari Gallico in Latinum.”

The dedication prefacing<sup>2</sup> the actual account of the journey runs thus:

*“Illustrissimo Renato Iherusalem et Siciliae regi, duci Lothoringiae ac Barnensi, Americus Vesputius humilem reverentiam et debitam recommendationem.”*

According to this, Amerigo Vespucci must evidently have sent the story of his travels, written in French, to René, the titular King of Jerusalem and Duke of Lorraine.

Walter Ludd, too, declares in his work entitled, *Speculi orbis declaratio*, printed also in 1507 by Joh. Grieninger at Strasburg, that the account of the four voyages, written in French, had been sent from Portugal to Duke René. In the same

<sup>1</sup> See p. 41 of our facsimile.

<sup>2</sup> l.c., p. 42.

### *Four Voyages of Vespucci*

work Ludd also informs us that it was he who urged its translation into Latin, and that he had entrusted Joh. Basinus with its execution: "*Quarum etiam regionum descriptionem ex Portugallia ad te, Illustrissime rex Renate, gallico sermone missam Joannes Basinus Sendacurius insignis poeta, a me exoratus qua pollet elegantia latine interpretavit.*"<sup>1</sup>

Now it seems very strange that an Italian like Amerigo Vespucci should have sent an account of his voyages from Portugal to the Duke of Lorraine and in the French language. It may be conceded that Duke René may have received the account of Amerigo Vespucci from Portugal at the same time when he received the Portuguese sea-charts, a question we shall consider later. It is possible, also, that Vespucci wrote his report in French, for we know that in his youth he sojourned in France for some time as secretary of one of his relatives, who was the Florentine envoy at the court of Louis XI.<sup>2</sup> But it is inconceivable that Amerigo Vespucci should have addressed his report to the Duke of Lorraine. With Duke René Vespucci

<sup>1</sup> Concerning this work of the utmost rarity and interest see R. H. Major, *Memoir on a mappemonde by Leonardo da Vinci* Archæologia Vol. XL. (London, 1865) p. 21 and 31; HARRISSE, *B.A.V.* p. 99 seq. D'Avezac, l.c., 65; F. v. Wieser, *Magalhães-Strasse*, p. 118.

<sup>2</sup> Cf. on this point G. Uzielli, *Toscanelli* 1893, p. 13 et seq., 23 et seq.; L. Gallois, l.c., *Bulletin* 1900, p. 72.

## *Four Voyages of Vespucci*

had no personal relations. When, however, in the dedication to the *Four Voyages*, we read that Vespucci reminds the addressee of the friendship which had existed between "them" in the days "they" were students together at the house of his uncle, G. Antonio Vespucci,<sup>1</sup> in Florence, we can entertain no doubt that Vespucci did not send his account to Duke René. Moreover, we know that Vespucci was an intimate friend and fellow-student of his countryman, Pietro Soderini, subsequently Gonfaloniere, of Florence.<sup>2</sup> The passage quoted from the dedication as well as the address used, "*Vuostra Magnificentia*," in the Italian edition of the *Quatuor Navigationes* is quite applicable to Soderini. These passages as well as others referring to Soderini were inadvertently reproduced in the Latin translation, while all other phrases relating to the recipient of the letter were so adapted as to fit Duke René of Lorraine.

It seems more than probable that Vespucci wrote the account of his four voyages to Soderini in Italian. As a matter of fact, there

<sup>1</sup> *Ubi recordabitur, quod olim mutuam habuerimus inter nos amicitiam tempore iuventutis nostræ, cum grammaticæ rudimenta imbibentes sub probata vita et doctrina venerabilis et religiosi fratris de S. Marco Fratris Georgii Anthonii Vesputii avunculi mei pariter militaremus.* (See p. 43 of facsimile.)

<sup>2</sup> See Bandini, *Vita et Lettere di Amerigo Vespucci*, Florence, 1745, p. xxv; Fr. Bartolozzi, *Ricerche istorico-critiche circa alle scoperte di Amerigo Vespucci*, Florence, 1789, p. 67.

## Four Voyages of Vespucci

exists a very ancient printed edition of the work which, while undated, must belong to the sixteenth century, judging from its typography.<sup>1</sup> This original Italian edition was then translated into French and thence into Latin by Basinus Sendacurius at St. Dié. Waldseemüller in the *Cosmographiæ Introductio* (p. 18) explicitly states: "*Quatuor Navigationes ex Italico sermone in Gallicum et ex Gallico in latinum versæ.*" It must be left undecided whether the French version was actually translated in Portugal as intimated by Walter Ludd, or whether it was made in Paris, a city with which Duke René, of course, was in constant communication. It is also doubtful whether the flattering substitution of the name of René as the intended recipient of the report was made while it was being translated into French or by Basinus Sendacurius.<sup>2</sup>

<sup>1</sup> In regard to the different editions of the Vespucci letters and the literature dealing therewith, read besides the works cited above, D'Avezac, Meaume, Gallois, and particularly HARRISSE *Bibliotheca Americana Vetustissima*, p. 55 et seq., and *Additions* p. xxii et seq., F. A. de Varnhagen, *Amerigo Vespucci, son caractère, ses écrits (mêmes les moins authentiques), sa vie et ses navigations*, Lima 1865, p. 9 et seq. and 27 et seq., and the introductions of the 2 facsimile-editions of the "Lettera" by B. Quaritch, London 1885 and 1893.

<sup>2</sup> The Latin text of Sendacurius was included by Simon Grynæus in his well-known collection of voyages, *Novus orbis* (Basel 1532, Paris 1532, Basel 1537 and 1555; ■ German edition appeared 1534. In more recent times M. F. Navarrete reprinted the entire Latin text in his *Coleccion de los viages y descubrimientos*, III, Madrid 1829, p. 191 et seq.; F. A. de Varnhagen, *Amerigo Vespucci* p. 34 et seq.; G. Berchet *Fonte Italiane per la storia della Scoperta del nuovo mondo*, Rome 1893, et sq.; J. Boyd-Thacher, l.c., reproduces the report of the first voyage.

### *Four Voyages of Vespucci*

The *Quatuor Navigationes* contained the most complete and substantial account of the transatlantic discoveries which had appeared up to that time. Vespucci, during those four expeditions, became acquainted with extensive tracts of the South American Continent, and, according to his own statement, during the third voyage he reached as far south as the fifty-second degree of latitude and there sighted an inhospitable coast.

In a separate account, dealing with the third voyage and published in numerous printed editions, he conceived the vast territories of the southern hemisphere to be one united continent and called it the "New World"—"*mundus novus*."

It is therefore not surprising that Waldseemüller got the impression that Amerigo Vespucci was the discoverer of the new continent, and conceived the idea of calling the new continent *AMERICA* in his honor.

### III

## WALDSEEMÜLLER'S LARGE WORLD MAP OF 1507

### *Plate I*

THE map of the world which belongs to the *Cosmographiæ Introductio* is called *Universalis Cosmographiæ descriptio in plano* on the title-page of the book.<sup>1</sup> Until quite recently this map was thought to be lost. From reduced copies made<sup>2</sup> by the Swiss cosmographer, Henricus Glareanus, which have but lately come to light, it was possible, however, to obtain a fair

<sup>1</sup> The two maps belonging to the *Cosmographiæ Introductio* are frequently referred to in the text as "*Totius orbis typus tam in solido quam plano*," also "*Cosmographia tam solida quam plana*," or by other terms. See pp. 3, 4, 20, 37, etc., of our facsimile.

<sup>2</sup> Of the two reductions of this map by Glareanus the one was found by Fr. v. Wieser in a copy of the *Cosmographiæ Introductio* belonging to the University Library at Munich, the other by A. Elter in a copy of the Ulm-Ptolemy of 1482 belonging to the University Library at Bonn. In this latter work it is explicitly stated, "*Secutus Geographum Deodatensem seu potius Vosagensem*." See Fr. v. Wieser, *Magalhães-Strasse und Austral-Continent*; Innsbruck, 1881, pp. 12, 26; A. Elter, *De Henrico Glareano geographo et antiquissima forma "Americæ" commentatio*; *Festschrift der Bonner Universität*, 1896, p. 7 et seq. See also E. Oberhummer, *Zwei handschriftliche Karten des Glareanus in der Münchener-Universitätsbibliothek* (Jahresbericht der Geogr.-Gesellschaft in München 1892, p. 67 sq.), Edw. Heawood, *Glareanus, his Geography and Maps* (in the *Geographical Journal*, London, 1905, p. 647 et seq.). C. F. Close, *Glareanus* (in the *Royal Engineers Journal*, 1905, p. 303).

### *Waldseemüller's Large Map of 1507*

notion of its appearance. A copy of an original print of the map, which had so long been vainly searched for, was ultimately discovered in 1900 by Prof. Jos. Fischer, S.J., in the library of Castle Wolfegg in Würtemberg, belonging to the princely house of Waldburg.

A facsimile edition of this map, which is of the utmost importance to the history of cartography and of the age of transmarine discovery, was published in 1903, together with an exhaustive commentary by Jos. Fischer and Fr. v. Wieser in both German and English.<sup>1</sup>

Although Waldseemüller in the *Cosmographiæ Introductio* remarks that his map is of larger dimensions than the globe; and though Glareanus in the Munich edition of his copy still more sharply emphasizes the great size of Waldseemüller's map,<sup>2</sup> the newly found original print nevertheless caused a sensation on account of its impressive size, abundant contents, and the artistic merit of its adornment. The map consists of twelve sections engraved on wood,

<sup>1</sup> *Die älteste Karte mit dem Namen Amerika aus dem Jahre 1507 und die Carta Marina aus dem Jahre 1516 des M. Waldseemüller (Ilacomilus). The oldest map bearing the name America of the year 1507 and the Carta Marina of the year 1516 by M. Waldseemüller (Ilacomilus).* Edited with the assistance of the Imperial Academy of Sciences at Vienna by Prof. Jos. Fischer, S.J., and Prof. Fr. R. v. Wieser, Innsbruck, Wagner's University Press, 1903. Sole agents for the British Empire and America, Henry Stevens, Son & Stiles, 39 Great Russell Street, London.

<sup>2</sup> *Etenim ipse auctor id in maximo spatio compinxit ita, ut in codice hoc locum habere nequiret.* See E. Oberhummer, l.c., p. 70.

### *Waldseemüller's Large Map of 1507*

and is arranged in three zones, each of which contains four sections. Each section measures to its edge 45.5 x 62 cm. (18 x 24½ in.). The map, covering thus a space of three square meters—about 36 square feet—represents the earth's form in a modified Ptolemaic coniform projection with curved meridians. On the lower edge, in capital letters, the title is thus inscribed: “*UNIVERSALIS COSMOGRAPHIA SECUNDUM PTHOLOMÆI TRADITIONEM ET AMERICI VESPUCII ALIORUMQUE LUSTRATIONES.*”

The name of the author of this work is nowhere stated nor the date or place of its publication. By circumstantial evidence, however, it can be proved without the shadow of a doubt that at last we have Waldseemüller's long-lost large map of the earth, belonging to the *Cosmographiæ Introductio*. Among these proofs are the following:

1. Its perfect agreement with the two copies of Glareanus, both in projection and in the outline of the several countries.

2. The conformity of the map to all the statements made regarding its details in the *Cosmographiæ Introductio*, such as:

- a. The title, *Universalis Cosmographia*.

- b. The designation of the several countries by means of the coats of arms of their re-

## *Waldseemüller's Large Map of 1507*

spective rulers, exactly in accordance with the statements made on this point in the *Cosmographiæ Introductio*, the Imperial Eagle of the German Empire, the Papal Keys, the Crescent of the Sultan of Egypt, the Golden Cross with Branding Irons of the Sultan of Turkey, the Anchor of the Great Khan of Tartary, the Red Cross of Prester John, and the Royal Arms of Spain and Portugal in the newly discovered parts of the world.

- c. The use of small crosses to indicate all places dangerous to navigation.
- d. The name of "America," given to the newly discovered fourth continent.
- e. The fact that the fourth continent is named and depicted as an island.<sup>1</sup>
- f. The agreement of several legends of the chart with those indicated in the *Cosmographiæ Introductio*.<sup>2</sup>

3. The explicit reference to the map made by Waldseemüller himself in his *Carta Marina* of 1516, which has the same number and size of sheets: *Generalem igitur totius orbis typum,*

<sup>1</sup> *Hunc in modum terra iam quadripartita cognoscitur; et sunt tres primæ partes continentes, quarta est insula.* See p. 30 of the facsimile.

<sup>2</sup> Compare, for instance, the text at the lower left-hand corner of the map with p. 45 of our facsimile print.

<sup>3</sup> See Fischer and v. Wieser, *The Oldest Map with the Name America*, p. ii and Tabula 23.

## *Waldseemüller's Large Map of 1507*

*quem ante annos paucos absolutum non sine grandi labore ex Ptolomei traditione, auctore profecto præ nimia vetustate vix nostris temporibus cognito, in lucem edideramus et in mille exemplaria exprimi curavimus. . . . Additis non paucis, quæ per marcum civem venetum . . . . et Cristoforum Columbum et Americum Vesputium capitaneos Portugalenses lustrata fuere.*

The antithesis of the Ptolemaic tradition and the new discoveries of the Spaniards and Portuguese is pictorially expressed on the Waldseemüller map of 1507 by the busts of Ptolemy and Amerigo Vespucci.

The principal basis of Waldseemüller's large mappemonde were no doubt the maps of Claudius Ptolemy, which Waldseemüller knew from the Ptolemy edition published at Ulm in 1486. The *Tabulæ modernæ* of the same edition gave him additional aid in the representation of Italy, Spain, France, and the territories of the North. In designing Germany, he made good use of Ezlaub's map for travelers,<sup>1</sup> published a short time previously. Another source of information were the travels of Marco Polo, which he utilized for his designs of northern and eastern Asia as well as of the southern and

<sup>1</sup> See A. Wolkenhauer, *Über die ältesten Reisekarten von Deutschland aus dem Ende des 15. u. dem Anfang des 16. Jahrhunderts* (Deutsche Geographische Blätter, vol. xxvi, fasc. 3 & 4, Bremen, 1903).

*Waldseemüller's Large Map of 1507*

eastern islands of Asia. In making his drawing of these territories, Waldseemüller also made use of a map on which all countries described by Marco Polo were represented just as on a map of the world by Martellus Germanus, or on the Globe of Martin Behaim.<sup>1</sup> As for the representation of the interior of Africa, there was at Waldseemüller's disposal an interesting *Special Map of Abyssinia*, whose specifications, however, he wrongly localized by making the Blue Nile appear to discharge its waters into the *White Nile* from the left, and by shifting<sup>2</sup> the territory about Lake Tana (*Sahaf lacus*) to South Africa.

For his designs of the lands just discovered by the Spaniards and Portuguese, Waldseemüller, according to his own statement, followed certain sea-charts, *cartas marinas sequutivum*.<sup>3</sup> We can prove positively that Waldseemüller made use of two Portuguese sea-charts in preparing his large map of the world. One of them must have been of the same *type* as the Hamy map, formerly known as the "King map."<sup>4</sup>

<sup>1</sup> See Fischer and v. Wieser, *The Oldest Map with the Name America*, p. 25 et seq.

<sup>2</sup> See "*Map of the World by Jodocus Hondius 1611*," ed. by E. L. Stevenson, Ph.D., and Jos. Fischer, S.J., New York, 1907, p. 15. Prof. Fischer will soon publish this map of Abyssinia, of which he has found three variants.

<sup>3</sup> See p. 37 of the facsimile.

<sup>4</sup> The Hamy map was first published by E. T. Hamy in the *Bulletin de géographie historique*, 1886, and subsequently in his work.

## *Waldseemüller's Large Map of 1507*

Waldseemüller's principal cartographic source of information, however, regarding the newly discovered territories was, as we have shown in our earlier work,<sup>1</sup> the *Canerio map*.<sup>2</sup> From Canerio Waldseemüller borrowed both the outlines and the legends for the representation of the coasts of the New World and South Africa.

The agreement of the two charts is so marked and extends to so many minor details of drawing in precisely the same places—as, for instance, the placing of the Padrãos, of the elephant in South Africa, of the armorial bearings, etc., in precisely the same positions—that it could not have been a map of the Canerio type which served Waldseemüller as the chief reference for his great work, but must have been Canerio's map itself, now preserved in the Naval Archives of Paris.

*Waldseemüller's great map of the world produced a profound and lasting impression on cartography; it was a map of wholly new type and represented the earth with a grandeur never before attempted.*

Ere many years had elapsed, many reduced copies of the work appeared; for instance, in 1510 the above-mentioned manuscript reproduc-

*Études hist. et géogr.*, Paris, 1896. See also Nordenskiöld, *Periplus*, plate xlv.

<sup>1</sup> Fischer and v. Wieser, *The Oldest Map*, p. 27 et seq.

<sup>2</sup> L. Gallois, *Le Portulan de Nicolas de Canerio*, in the *Bulletin de la Société de géogr. de Lyon*, 1890; G. Marcel, *Reproductions de cartes et de globes*, Paris, 1893; HARRISSE, *Discovery of North America*, pl. xiv.

### *Waldseemüller's Large Map of 1507*

tions of Henricus Glareanus; another in 1520 in the Vienna Solinus edition; and still another in 1522 in the Basel edition of Pomponius Mela; these were the work of Petrus Apianus.

Even the small hemispherical maps next to the busts of Ptolemy and Amerigo Vespucci on the upper edge of the large map were repeatedly reproduced in the original size, as, for instance, by Joh. Stobnicza in his *Introductio in Ptholomei Cosmographiam*, printed in Krakow in 1512, and in manuscript form by Glareanus and Sebastian Münster.

Waldseemüller's map of 1507 was still more widely spread by numerous adaptations, such as those of Joh. Schöner, Peter Apian, Joachim Vadian, Sebastian Münster, Gemma Frisius, Kaspar Vopelius, and Abraham Ortelius.

In the little mappemonde, *Universalis Cosmographia*, attached to the numerous editions of the *Rudimenta Cosmographica* by the Transylvanian humanist, Joh. Honterus,<sup>1</sup> and which passed thence into other works, Waldseemüller's World Map continued to exist nearly unchanged for almost a century.<sup>2</sup>

<sup>1</sup> Appearing first in Krakow: *Matthias Scharffenbergius excud.* 1530.

<sup>2</sup> For more detailed indications about the propagation and influence of Waldseemüller's drawing of the world, see Fischer and v. Wieser, l.c., p. 36 et seq.

#### IV

### WALDSEEMÜLLER'S GLOBE OF 1507

#### *Plate II*

THE reference made in the title of the *Cosmographiæ Introductio* to a "*Universalis cosmographiæ descriptio tam in solido quam plano*" has been variously interpreted by scholars studying Waldseemüller's works. On the one hand the view was taken that the expression referred to two maps, one of which, *in solido*, represented a small chart in the form of a planisphere;<sup>1</sup> while on the other hand it was contended that the words "*tam in solido quam plano*" signified but *one* complete map, on which small hemispherical supplementary maps had been inscribed in addition to the large chart.<sup>2</sup> This latter contention was apparently justified by the rediscovery of Waldseemüller's map of 1507; for here are actually two small supplementary maps above the large one, representing, respectively, the Eastern and Western Hemisphere. On closer examination, however, it is clear that these two hemispherical charts

<sup>1</sup> Breusing, *Leitfaden durch das Wiegenalter der Kartographie*, Frankfurt, 1883, p. 31.

<sup>2</sup> Elter, *l.c.*, pp. 21, 23.

*Waldseemüller's Globe of 1507*

can not be identified with the *Universalis Cosmographiæ descriptio in solido*.

It is expressly stated in the *Cosmographiæ Introductio* that the globe and the large map of the world differ in their indications of the degrees of latitude; for while on the globe the equator is marked in accordance with information derived from sea-charts and from accounts of the voyages of Vespucci, on the map it is drawn according to the system of Ptolemy.<sup>1</sup> When, however, we compare the hemispherical charts with the main map, no difference can be perceived in their location of the equator relative to the countries of the world, a fact particularly noticeable on the western coast of Africa.

There exists, however, in the Hauslab-Liechtenstein Collection at Vienna, a printed representation of the terrestrial globe in strips, the only one hitherto found,<sup>2</sup> which agrees with the statements published in the *Cosmographiæ Introductio*. The coast of Guinea on this globe approaches about ten degrees closer to the equator than on the large map of the world or on the

<sup>1</sup> . . . nos in depingendis tabulis typi generalis non omnimodo sequutos esse Ptholomæum præsertim circa novas terras, ubi in cartis marinis aliter animadvertimus æquatorem constitui quam Ptholomæus fecerit. . . . Et ita quidem temperavimus rem ut in plano circa novas terras et alia quæpiam Ptholomæum, in solido vero, quod plano additur, descriptionem Americi subsequentem sectati fuerimus. See p. 37 et seq. of facsimile.

<sup>2</sup> Plate II gives these globe-strips on a scale of 2:3 of the original.

*Waldseemüller's Globe of 1507*

small charts representing the hemispheres. In Central America the Tropic of Cancer appears to the south of Hayti, while on the large map of the world its course is laid directly through the island of Isabella, or Cuba, as it is now called.

In the representation of America on the Hauslab-Liechtenstein globe the degrees of latitude correspond exactly with those found on contemporary Spanish and Portuguese maps such as those of Juan de la Cosa, of Bartholomeo Colombo, of the Hamy map, of the Cantino, and of the Canerio maps.

While the degrees of latitude of Africa do not exactly follow those of the Portuguese maps, Waldseemüller still being greatly influenced in these by Ptolemy, the Hauslab-Liechtenstein globe-strips correspond in every other particular with the details of the large map of 1507.

Attached to an edition of the *Cosmographiæ Introductio* published in Lyons there is a small printed chart representing the globe, which corresponds with the Hauslab-Liechtenstein copy not only in the drawing and the disposition of the various territories, but also in the degrees of latitude above mentioned.

From all these facts we may safely infer that in the Hauslab-Liechtenstein globe-strips we possess the long-sought-for Waldseemüller globe

*Waldseemüller's Globe of 1507*

of 1507. It is the merit of F. A. de Varnhagen and L. Gallois to have been the first to establish<sup>1</sup> this identity.

In 1509 there appeared in Strasburg a new edition of the *Cosmographiæ Introductio* put forth by John Grieninger, an extremely active printer and publisher, on which Waldseemüller's<sup>2</sup> (Ilacomilus) name appears as that of the author. Grieninger, who was given to popularizing literature, at the same time published a German translation of the *Quatuor Navigationes*, of which two editions appeared in close succession, one about Mid-Lent, the other at Lætare.<sup>3</sup> As a supplement to this German translation, giving an account of the four voyages of Amerigo Vespucci, a small booklet was published by Grieninger, entitled *Der welt kugel Beschrybung* (*Description of the Globe*).<sup>4</sup>

<sup>1</sup> F. A. de Varnhagen, *Fo. Schöner o P. Apianus (Bienewitz): Influencia de um o outro e de varios de seus contemporaneos*. Vienna, 1872, p. 47 et seq. L. Gallois, *Les Géographes allemands de la Renaissance*, Paris, 1890, p. 48 et seq., and *Bulletin*, l. c., p. 78 et seq.

<sup>2</sup> *Cosmographiæ Introductio*. . . . Pressit apud Argentoracos hoc opus Ingeniosus vir Joannes Grüniger. Anno post natum salvatorem super sesquimillesimum nono. Harrisse, *B. A. V.*, p. 116.

<sup>3</sup> *Disz büchlin saget wie die zwen durchlüchtigsten herren herr Fernandus K. zü Castilien und herr Emanuel K. zü Portugal haben das weyte mör ersüchet unnd funden vil Insulen unnd ein Nüwe welt von wilden nackenden Leüten, vormals unbekant. Gedruckt zü Strassburg durch Johannnen Grüniger. Im iar MCCCCIX uff mitfast. Wie du aber dye Kugel und beschreibung der gantzenn welt virston sollt, würst du hernach finden unnd lesen.* Harrisse, *Add.*, p. 43; *B. A. V.*, p. 118, the same title can be found, only it is not *uff mitfast* but *uff Letare*.

<sup>4</sup> *Der welt kugel Beschrybung: der Welt und dess gantzen Ert-*

## *Waldseemüller's Globe of 1507*

A few months later, toward the end of August, 1509, another publication by Grieninger appeared, entitled *Globus mundi declaratio*, which is a Latin translation of *Der welt kugel Beschrybung*. In both these descriptions of the globe, reference is made not only to a small sphere belonging to the work but also to "*unser grosse Mappa*."<sup>1</sup> Considering all that has been said we cannot resist the conjecture that by this small globe and this large "Mappa" are meant Waldseemüller's two charts and that they are new impressions from the original woodcuts of 1507.<sup>2</sup>

As regards the large map of the world this may be unhesitatingly admitted, for there is nothing whatever known of a later edition; and

*treichs hie angezogen und vergleicht einer rotunden kuglen, die dan sunderlich gemacht hie zu gehörende, darin der Kauffman und ein ietlicher sehen und mercken mag, wie die menschen unden gegen uns wonen und wie die son umgang, herin beschriben mit vil seltsamen dingen. Getruckt zu Strassburg. Von Johanne Grüniger im yar M.D. IX uff ostern. Johanne Adelpho castigatore. Harrisse, Add., p. 43 et seq.*

<sup>1</sup> *Wie weit aber also sei von einem ort zu dem andern, daz ist mysslich in dieser kleinen Kuglen ze wüssen der grad halb so alhie nit mögen beschriben noch bezeichnet werdenn, sonder so du das begerest ze wüssen, Mustu unser grosse Mappa anschauwen. "Der welt Kugel Beschrybung," Cap. xii.*

In the Latin edition, *Globus mundi declaratio*, this paragraph reads as follows: *Quantum vero locus unus a reliquo distat, difficile cognitu est in hoc parvo globo propter gradus qui assignari omnes non possunt in eo. Si vero idipsum scire volueris mappam majorem considerabis cosmographiæ planæ, in quacertius ac verius apprehendes secundum longum et latum extensos.*

<sup>2</sup> This opinion was already (1900) set forth by L. Gallois, *Bulletin, l.c.*, p. 78 et seq.

*Waldseemüller's Globe of 1507*

on account of the great size of the map and the quantity of wood-blocks needed it is also quite improbable that such an edition was published. There are, however, a great many indications that in 1509 Grieninger published a new edition of the small globe in German in order to render this important aid to the study of recent discoveries accessible to the general public.<sup>1</sup> The representation of the globe on the title-page of both the German and Latin editions seems to point to this. This vignette represents a hemisphere on which the various countries are distributed in exactly the same manner as on the large globe of 1507, but with a German text. The small slice of the newly discovered Western Continent does not bear the inscription "America," but that of "nūw welt."

From this it must not, however, be inferred that the German globe did not also contain the word "America," as in the German description of the globe both expressions are used indifferently to designate the countries discovered by Vespucci.

To be sure, Waldseemüller did not use the word "America" in his later cartographical works, *e. g.*, the large map of the world and the

<sup>1</sup> Formerly authors regarded the globe-strips of the Hauslab-Liechtenstein Collection as belonging to the descriptions of the globe by Grieninger, as for example, D'Avezac, *Bull. Soc. géogr.*, Paris, 1872, p. 16.

### *Waldseemüller's Globe of 1507*

*Tabula terræ novæ* of the Ptolemy edition published in Strasburg, 1513, the map of the world in the Strasburg edition of the *Margarita philosophica* of 1515, and the large *Carta Marina* of 1516.

Waldseemüller subsequently became convinced that Amerigo Vespucci should not be regarded as the true discoverer of the New World as he believed in 1507. His attempt, however, to withdraw the word "*America*," a name he himself invented and used, proved a failure; for his works, published in 1507, had been rapidly spread far and wide in numberless prints, copies, and versions. As early as 1508 Waldseemüller wrote with just pride to his friend and co-worker, Philesius Ringmann, that his globe and world-map of 1507 were disseminated and known and highly commended throughout the whole world.<sup>1</sup> In accordance with the proposal made by Waldseemüller in 1507, the name *America* was, for the time being, restricted to the southern part of the New World. After the lapse of three decades, however, another German cartographer applied the name *America* to the northern portion of the Western Hemisphere. On Gerhard Mer-

<sup>1</sup> "*Cosmographiam universalem tam solidam quam planam non sine gloria et laude per orbem disseminatam.*" These words are found in Waldseemüller's treatise, "*Architecturæ et Perspectivæ Rudimenta*," published, 1508, in the Strasburg edition of the *Margarita philosophica*.

*Waldseemüller's Globe of 1507*

cator's map of the world, published in 1538<sup>1</sup> and drawn in the double heart-shaped projection of Stabius, the northern part of the New World, "*Americæ pars septentrionalis*" is contrasted with its southern part, "*Americæ pars meridionalis*."

Mercator, the great reformer of cartography, who knew the New World as a double continent, was the first to introduce into geographical literature the names North America and South America.

*Martinus Waldseemüller  
alias Flavungius abt  
et Rodericus*

<sup>1</sup> This map of Mercator, only one copy of which exists (in the library of the American Geographical Society), is reproduced, *e.g.*, in the Facsimile-Atlas of Nordenskiöld, plate xliii.

COSMOGRAPHIAE INTRODV.  
CTIO / CVM QVIBVS  
DAM GEOME  
TRIAE  
AC  
ASTRONO  
MIAE PRINCIPIIS AD  
EAM REM NECESSARIIS.

Insuper quatuor Americi Ves  
pucij nauigationes.

Vniuersalis Cosmographiæ descriptio  
tam in solido q̃ plano / eis etiam  
inertis quæ Ptholomæo  
ignota a nuperis  
reperta sunt.



DISTICHON.

Cum deus astra regat / & terræ climata Cæsar  
Nec tellus nec eis sydera maius habent.

*Est Beati Rhenani Salustiani.*

M D X. -

MAXIMILIANO CAESARI AVGVSTO  
PHILESIVS VOGESIGENA.

Cum tua sit vastum Maiestas sacra per orbem  
Cæsar in extremis Maxmiliane plagis  
Qua sol Eois rutilum caput extulit vndis /  
Atq; freta Herculeo nomine nota petit:  
Qua; dies medius flagranti sydere feruet /  
Congelat & Septem terga marina Trio:  
Aciubeas regū magnorum maxime princeps  
Mitia ad arbitrium iura subire tuum  
Hinc tibi deuota generale hoc mente dicauit  
Qui mira præsens arte parauit opus.

• Τελος

DIVO MAXIMILIANO CAESARI AV  
GVSTO MARTINVS ILACO  
MILVS FOELICITA  
TEM OPTAT.

Si multas adijisse regiones / & populorū vltimos  
vidisse / nō solū voluptariū sed etiam in vita cōduci  
bile est ( quod in Platone / Apollonio Thyanæo  
atq; alijs multis philosophis / qui indagandarū rerū  
causa remotissimas oras petuerūt / clarum euadit )  
quis oro inuictissime Cæsar Maximiliane / regio  
nū atq; vrbium situs / & externorum hominum

Quos videt condens radios sub vndas

Phœbus extremo veniens ab ortu :

Quos premunt Septem gelidi Triones :

Quos Nothus sicco violentus æstu

Torret ardentes recoquens harenas. Quis inquā  
illorū omniū ritus ac mores ex libris cognoscere iu  
cundū ac vtile esse inficias ibit? Sane ( vt dicā quod  
mea fert opinio ) sicut longissime peregrinari lauda  
bile est / ita de quibus cui ipse terrarū orbis vel ex sola  
chartarū traditione cognitus est / nō absurde repeti  
identidē potest illud Odissæ caput quod doctissimi Home  
rus

Dic mihi musa virū captæ post tempora Troiæ

Qui mores hominū multorum vidit & vrbes.

Hinc factū est vt me libros Ptholomei ad exēplar  
Græcū quorundā ope p virili recognoscēte / & qua  
tuor Americi Vespuchij nauigationū lustratiōes adij  
ciēte ; totius orbis typū tā in solido q̃ plano ( velut

A ñ

## ANTELOQVIVM

præuiam quandā yfagogen ) p cōmuni studiosorū  
vtilitate parauerim. Quē tuę sacratissimę maiestati  
cū terrarū dñs existas dicare statui. Ratus me voti  
cōpotē/ & ab æmolorū machinamentis tuo (tanq̃  
Achillis) clipeo tutissimū fore/ si tuę Maiestatis acu  
tissimo in eis rebus iudicio aliqua saltem ex parte  
me satis fœcisse intellexero. Vale Cæsar inclytissi.  
Ex oppido diui Deodati. Anno post natū Saluato  
rem supra sesquimillesimū septimo:

### TRACTANDORVM ORDO.

Cū Cosmographiæ noticiā sine præuia quadam  
astronomię cognitione/ et ip̃a etiā astronomia sine  
Geometriæ pricipijs plene haberi neq̃at : dicemus  
primo in hac succincta introductiōe paucula de Geo  
metrię inchoamentis ad spherę materialis intelligē

2 Deīde qđ sphaera/axis/ poli &c. (tiā seruiētibz.

3 De cœli circulis.

4 Quandā ipsius spherę secundū graduū rōnes The

5 De quinq̃ Zonis cœlestibus (oricā ponemus  
earundēq̃ & graduū cœli ad terram applicatione

6 De Paralellis.

7 De climatibus orbis.

8 De ventis cū eorū et aliarū rerū figura vniuersali

9 Nono capite quēdā de diuisione terrę / de sinibus  
maris/ de insulis/ et locorū abinuicē distātia dicentē  
Addeť etiā quadrans Cosmographo vtilis.

Vltio loco q̃tuor Americi Vespucij subūge. p  
fectiōes. Et Cosm. tā solidā q̃ planā describemus.

DE PRINCIPIIS GEOMETRIÆ AD  
SPHÆRÆ NOTICIAM NE-  
CESSARIIS  
CAPVT PRIMVM



VIA IN SEQVENTIBVS  
circuli/circumferentię/centri/dia-  
metri/et id genus aliorum crebra  
mentio fiet: ideo primum nobis  
singillatim de talibus breuissime

tractandum venit

Est igitur Circulus / figura plana vna quidem  
circumducta linea contenta: in cuius medio pun-  
ctus est/ a quo omnes rectę lineę ad circūdantem  
lineam eductę adinuicem sunt ęquales.

Figura plana/est cuius mediũ nō subsultat/neq;  
ab extremis egreditur.

Circūferentiā/est linea circulũ continens ad quā  
omnes rectę lineę a centro circuli eiectę inter se sūt  
ęquales/quę & ambitus/& circuitus/curuaturaq;  
ac circulus a latinis/gręce autem periphēria dicitur.

Centrũ circuli/est punctus ille a quo omēs rectę  
ad lineā circulũ continentē eductę adinuicem sunt  
ęquales.

Dimidijs circulus/est figura plana diametro cir-  
culi & medietate circūferentię contenta.

Diameter circuli/ est quęcūq; linea recta per cen-

A. iij

## GEOMETRIAE

trū circuli transiens vtrinq; ad circuli peripheriam  
iecta.

Linea recta/est a puncto ad punctū extensio bre  
uissima.

Angulus/est duarū linearū mutuus cōtactus. Est  
eī figuræ particula a lineę contactu in amplitudi  
nem surgens.

Angulus rectus/est angulus ex linea supra lineā  
cadente/& vtrinq; altrinsecus duos adinuicē & qua  
les angulos faciente causatus: quē si rectę lineę con  
tinent rectilineus: si curuę/curu u. spherālisc; dicet:  
Obtusus ē q̄ ē recto maior. Acutus recto minor.

Solidū/est corpus longitudine/ latitudine/altitu  
dineq; dimensum.

Altitudo/crassities/profunditas idem.

Integrum est res tota/aut rei pars quę sexagenaria  
partitione non prouenit.

Minutum/est sexagesima integri pars.

Secundum/sexagesima pars minuti.

Tertiū sexagesima secundi/& ita deinceps

**CAPVT SECVNDVM QVID SPHERA/  
axis/poli & c. stricteffime perdocet.**

Anteaq; aliquis Cosmographiæ noticiā habere  
possit/neccssum est vt spheræ materialis cognitio  
nem habeat. Postquod vniuersi orbis descriptionē  
primo a Ptholomeo atq; alijs traditam/& deinde  
per alios amplificatā/nuper vero ab Americo Ves

## INCHOAMENTA

Spacio latius illustratā facilius intelliget. Igit̃.

Sphera (vt eā Theodosius in libro de spheris defini-  
nit) ē solida & corporea figura vna quidē cōuexa Theod.  
superficie cōtenta/ in cuius medio pūctus ē/ a quo dosius:  
omnes rectæ ad circūferentiā eductę adinuicē sunt  
ęquales. Et cū (vt neotericis placet) decem sint sphe-  
ræ cœlestes fit materialis sphaera ad instar octauę (q̃  
quod stellifera sit aplanes dicitur) ex circulis artifici-  
cialiter adinuicem iunctis per virgulam & axē me-  
dium centrum (quę terra est) tangētem cōposita.

Axis spheræ/ est linea per centrū spheræ trāsiens  
ex vtraq; parte suas extremitates ad spheræ circū-  
ferentiā applicās: circa quam sphaera /sicut rota cir-  
ca axem carri (qui stipes teres est) intorq̃tur & cō-  
uertitur/ estq; ipsius circuli diametrus. De q̃ Mani-  
lius ita loquitur.

Aera per gelidum tenuis deducitur axis  
Sydereus medium circa quem voluitur orbis

Poli ( qui & cardines & vertices dicuntur ) sunt  
puncta cœli axem terminantia/ ita fixa ut nūq; mo-  
ueantur sed perpetuo eodē loco maneant. Et quę  
hic de axe ac polis dicuntur ad octauā spheram re-  
ferēda sunt. Quoniam in pręsentiarum materialis  
spheræ determinationē/ q̃ (ut diximus) octauę sphe-  
ræ similitudinem habet/ suscepimus. Sunt itaq; eo-  
rū duo principales / vnus Septentrionalis (qui &  
Arcticus & Borealis appellatur/ alter Australis/ quē

A iij

## SPHERAE MATE.

**Virgili.** Antarccticū vocant /de hijs Vergilius ait.  
Hic vertex nobis semper sublimis /at illum  
Sub pedibus stix atra videt manescq̃ profundū.

Nos em̃ in Europa & Asia degētes polū Arctici  
cū p̃petuo videmus:q̃ sic diciť ab Arcto vel Arctu  
ro maiore Vrsæ q̃ & Calisco & Elice nomiat & Se  
ptētrionalis a septē stellis plaustrī/q̃ Triones vocī  
tant: & sūt minoris Vrsæ/ quam etiam Cynosurā  
adpellant. Vnde Mantuanus Baptista.

**Baptif.  
Carme.** Tu nobis Elice nobis Cynosura /per altum  
Te duce vela damus. &c. Item Borealis & Aquilo  
nicus ab eius mūdi parte vento. Nautæ stellam ma  
ris vocare asueuerunt. Huic oppositus est antarccti  
cus/vñ & nomē sortit. Nam anti gręca dictio lati  
ne cōtra significat. Is & Nothicus & Austronothi  
cus diciť: atq̃ a nobis propter terræ circulū qui est  
deuexus videri non potest/sed ab antipodibus( q̃s  
esse cōpertū ē)cernit. Vbi & obiter ānotādū/quod  
Deuexū/rei sphericę tu morē & ventrē significat.

Cōuexūꝝo eius cōtrariū est/et cōcauitatē notat.  
Sunt pręterea duo aliꝝ poli ipsius zodiaci /duos in  
coelo circulos arctici. s. & antarcctici describentes.  
Verū quia zodiaci & arctici atq̃ antarcctici ( qui in  
coelo sūt circuli)mentionē fecimus:ideo capite se  
quenti de circulis tractabimus.

### DE CIRCVLIS COELI CAP. TERTIVM.

Duplices sūt circuli q̃ & segmia ab auctoribus

## RVDIMENTA

dicunt in sphaera & coelo nō reuera quidem existētes sed imaginabiles: maiores. s. & minores.

Maiores circuli sunt qui in cōuexa superficie sphaerę descripti ipsam in duo æqua diuidit/ horū sunt sex. Aequator. s. Zodiacus/ Colurus æquinoctiorū/ Colurus solsticioꝝ/ Meridianus /& Horizon.

Circulus minor in sphaera ē qui in eadē sphaerę superficie descriptus sphaeram minime in duo æqua diuidit. Tales sunt quatuor. Arcticus/ Cancrī/ Capricorni/ & Antarcticus. Ita summam sunt decē de quibus debita serie et primo quidem de maioribus dicemus.

Aequator (qui & primi mobilis cingulus/et æquinoctialis dicitur) est circulus maior sphaeram in duo æqualia diuidens/ secundum quamlibet sui partem ab utroq; polo æque distans. Sic dictus quoniā sole ipsum transeunte (quod bis in anno in principio arietis. s. mēse Martio/ & principio librę mēse septembri contingit) toto terrarū orbe æquinoctium & dies nocti æqualis est.

Aequinoctiū Marcij /arietis/ vernale:

Aequinoctium Septembris/ librę/ autumnale:  
Zodiacus/ est circulus maior æquatorem in duobus punctis (quę sunt principia arietis & librę) dirimens/ cuius vna medietatē ad septentrionē/ altera vero ad Austrum declinat. Ita dictus vel a zōdion quod animal significat/ qm̃ duodecim animalia in

## SPHERAE MATE.

**Virgili.** se habet/vel a zoe quod est vita: quia omniū inferi orū vita secundū planetarū motus sub ipsa esse dignoscit. Latini eū signiferū vocant/ꝑ. xij. signa in se ferat. Atꝑ obliquū circulū. Hinc & Maro infit Obliquus qua se signorū verteret ordo.

In media zodiaci latitudine circularis linea ipsum in duo æqua partiēs et vltro citroꝑ sex latitu. gra. relinqns itelligit: quā Eclipticā vocāt/eo quod nūꝑ ꝑ solis aut lunæ deliquiū & eclipsis contingat/nisi eorum vterꝑ sub ea linea in eodem vel oppositis gradibus decurrat. In eodem si solare futurū sit deliquium. In oppositis vero si ipsius lunæ. Et sol semper sub ea linea medius incedit/neꝑ vltro deuiat. Luna aut & cæteri planetarum nunc sub ea/ nunc citra vel vltra expaciatī vagantur.

**Cæsar.** Duo sunt in sphaera coluri/qui solsticia & æquinoc̃tia distinguut. Ita a Colon græce quod membrum significat/& vris bobus( quos magnitudine Elephantū Cæsar cōmentariorū lib. iij. in Hercinia filua esse ait) dicti/qm̃ sicut cauda bouis membrū erecta semicirculū & non completū facit/ita nobis colurus semper imperfectus apparet. Vna em̃ medietas/videtur/cum alia sit occultata.

Colurus solsticiorū qui & declinationū dicitur est circulus maior per principia cancri & capricorni/p polos eclipticę parit & polos mundi trāsiens.

Aequinoctiorum colurus itidem circulus maior

## RVDIMENTA

est per principia arietis ac libræ/ & mūdi polos trā  
siens.

Meridianus est circulus maior per punctū verti 9  
cis & polos mundi transiens. Tales in generalibus  
nostris tam solido q̃ plano decem gradibus abin  
uicē distinximus. Est aut̃ pūctū verticis (quod &  
zenith dicit̃) in cœlo pūctus directē rei suppositus.

Horizon (quem finitorē quoq̃ dicunt) est sphe 6  
ræ circulus maior superius hemispherium (id est di  
midiū spheræ) ab inferiori diuidens. Estq̃ is in quē  
sub diuo consistentiū / circūducentiumq̃ oculos vi  
deī obtutus deficere: qui et partem cœli visam a nō  
visa dirimere cernitur. Diuersarū aut̃ regionū vari  
us est horizon: & omniū horizontiū capitis ver  
rex/ polus dicit̃. Nam tale punctū omniuaq̃ ab  
finitore atq̃ ipso horizonte æque distat. Et hæc de  
circulis maioribus/ nunc ad minores veniamus.

Circulus arcticus ē circulus minor quē polus zo 7  
diaci ad motū primū mobilis circa polū mundi ar  
cticum describit.

Antarcticus/ est circulus minor quē alter polus 8  
zodiaci circa polū mundi antarcticū causat atq̃ de  
scribit. Nūcupamus aut̃ polū zodiaci (de quo etiā  
superiori capite diximus) punctū vndecūq̃ ab eclip  
tica æque distantē. Sūt em̃ poli zodiaci axis eclip  
ticę extrēitates. Et q̃ta ē maxia solis declinatio (de  
q̃ mox plura) tāta ē poli zod. a polo mūdi distātia

## SPHERAE MATE.

Tropicus Cancrī est/circulus minōr quem sol in principio cancrī existēs ad motū primī mobilis describit/qui & solsticiū estiuū dicitur.

Tropicus capricorni/est circulus minōr quē sol initū capricorni tenens ad motū primī mobilis describit. Hunc etiam circulū brumę dicimus.

Ceterum quia declinationis mentionē fecimus ideo annotandū.

Declinationē esse quando sol de æquinoctiali ad Tropicū cancrī scandit/vel ad capricorni tropicū a nobis descendit.

Ascensionē pro cōtrario accipimus/qñ. s. a tropicis æquatori propinquat. Licet acyros & improprie a quibuscūq; dicatur ascendere quando nobis propinquat/& descendere cū a nobis discedit. Hactenus de circulis/iā ad spheræ Theoricā et latiorē quandā graduū quibus tales abinuicem distent speculationem accedamus.

### CAPVT QVARTVM

De quadam spherę Theorica secundū graduū rationes.

Sphera celestis quinque ligatur circulis principalioribus vno maiore & quatuor minoribus/Arctico, s. cancrī/æquatore/capricorni/et antarctico. E quibus æquator est maior/alij quatuor minores. Hos **Virgilius** ipsos vel potius quę intersunt spacia authores **Zonas** vocare asueuerunt. Hinc & Vergilius in *Geor*

## [RVDIMENTA

gicis ait.

Quinçp̄ tenent coelū zonæ: quarū vna coruseo  
Semper sole rubens / & torrida semper ab igni est  
Quam circū extremæ dextra læuacq̄ trahuntur  
Cerulea glaciē concretæ atq̄ himbribus atris /  
Has inter mediamq̄ duæ mortalibus ægris  
Munere concessę diuū: & via secta per ambas  
Obliquus qua se signorū verteret ordo.

De quarū qualitate in sequentibus plura dicent.  
Quia ꝑo superius tetigimus q̄ polus Zodiaci | cir-  
culū arcticū describat: ideo pro vltiori speculatio-  
ne sciendū hoc de superiori Zodiaci polo ( qui in  
66. gradu & .9. min. eleuatiōis situs ē / atq̄ a polo ar-  
ctico. 22. gradibus ac. 51. mi. distat ) itelligi oportere:

Vbi & illud non ignorandū Gradum tricesimā Grad.  
signi partem esse. Et Signū duodecimam circuli. Signū.  
At triginta duodecies multiplicata. 360. reddūt.

Quare liquidū euadit quod gradus iterū tricente-  
sima et sexagesima circuli pars esse definiri posset.

Circulum aut. Antarcticum polus Zodiaci infe-  
rior describit: qui in eodē gradu declinationis situs  
est et æque a polo antarctico distat sicut superior  
ab arctico.

Tropicū cancri / eclipticæ reflexio / siue maxima  
solis ꝑsus septemtrionē declinatio ( quę ab æquino-  
ctiali ad. 33. grad. & .51. min. sita est ) designat.

Tropicū capricorni alia Eclipticæ reflexio / siue

B

## SPHERAE MATE.

maxima solis vsus Austrum dedinatio (que ad totidem gradus sicut predicta sita est) describit.

Distantia inter tropicū cancri & circulū arcticū est. 22. graduū & .18. miñ. Totidem etiam graduū est distantia inter tropicū capricorni & circulum antarcticum.

Aequatorem media cœli amplitudo a polis mundi equedistans efficit.

Huc vsq; de quinque zonis & earum abinuicem distantia. cōsequenter etiam strictim de reliquis quedam trademus.

Circulū zodiaci eius ipsius poli ostendūt/a quibus vsq; ad tropicos (id est maximas solis declinationes & solsticia). 22. grad. & .18. mi. sūt. Estq; zodiaci latitudo ab ecliptica vsus vtrosq; tropicos sex graduum & in vniuersum. 12. grad.

Coluros declinationū & ascensionū signant solsticia & æquinoctia/hijq; sub polis mundi sese per axem cœli ad angulos rectos sphaerales interfecāt. Similiter per equatorem Sed per Zodiaci æquinoctiorum coluri vadentes cōstituunt angulos obliquos cū per solsticiorum zod. rectos causent.

Circulum meridionalem (mobilem quidem) axis idem sub ipsis polis continet.

Horizontis circulū/declarat zenith. Ipsum enim tanq; polus eius superior existēs vbiq; ab eo. eque distat. Atq; diuidit idem circulus horizontis/ hemi

## RVDIMENTA

sphērū nostrū ab altero per solis ortū & occasum:  
His vero qui sub æquinoctiali sunt per vtrosq; mū  
di polos. Et distat semper zenith in omni horizōte  
ab ipsius circumferentia. 90. gradibus qui sunt quarta  
pars circuli. Estq; peripheria horizontis quater dis  
stantiam inter zenith & horizonta superans.

Id demū animaduersione nō est indignum axem  
mūdi in materiali sphaera diametraliter ab eiusdem  
polis per centrū mundi (quæ est terra) transire.

Axis vero zodiaci in sphaera nō apparet sed intel  
ligendus est. & hic axem mundi medium ad angu  
los impares siue obliquos in centro interfecat.

Hoc modo in ipsa mundi fabrica mirabilis series  
& rerū ordo præcipuus esse videtur: cuius imaginē  
veteres astronomi describentes factoris ipsius quā  
tum fieri potuit vestigia (qui omnia in numero pō  
dere & mensura fecit) sequuti sunt. Nos quoq; ea  
de re tractantes spacij iniquitate sic exclusi vt ratio  
minutorū non vel vix possit obseruari / & si obser  
uaretur etiam tēdium cum errore gigneret / a plæ  
nis graduum annotationibus circulorum positio  
nem sumemus. Nam non multum distat inter .51.  
miñ. & plenum gradum qui sexaginta minuta con  
tinet sicuti supradiximus / atq; in libro de sphaera &  
aliubi ab harum rerum studiosis examussim declar  
ratur. Itaq; in figura quam pro talium intelligē  
tia hoc loco subiungemus ipsi bini tropici cancri. f.

B ij

## SP HERAE MATE.

interceptū spaciū/temporata atq̃ habitabilis. Tertia totū inter .d.e.f.g. medium spaciū feruore male egreq̃ habitabilis. Sol em̃ illic secundū lineā.f.e. (q̃ nobis eclipticā designat) assidua volubilitate gyros ducēs suo feruore eā reddit torridā atq̃ inhabitatā. Quarta est totū inter.f.g.et.h.k. spaciū temperata atq̃ habitabilis/si aquarū vastitas & altera coeli facies id impune sinat. Quinta est totum inter.h.k.i. interclusum spaciū frigore semper horrens atq̃ in-  
 Cum aut̃ dicimus aliquā coeli zonā (habitata, nam vel habitatā vel inhabitatā/hāc denominatio- nem a simili zona terræ illi coelesti plagæ subiecta intelligi volumus:& qñ habitatā aut habitabilē dicimus/bene & facile habitabilem. Cū vero inhabitatam vel inhabitabilē/egre difficileq̃ habitabilem intelligimus. Sunt em̃ qui exustam torridamq̃ zonam nūc habitant multi. Vt qui Chersonesum auream incolūt/vt Taprobanenses/Aethiopes/et maxima pars terrę semper incognitæ nuper ab Americo Vesputio repertę. Qua de re ipsius quatuor subiungentur nauigationes ex Italico sermone in Gallicum/& ex Gallico in latinum versæ.

Itaq̃ sciendū quod (vt & subsequēs indicat figura) prima zona q̃ polo arctico proxima est. 23. gradus latitudinis & 51. miñ. habet. Secūda quę antarctica atq̃ illi ipsi par est/totidem Tertia temperata. 22. & 18. miñ.

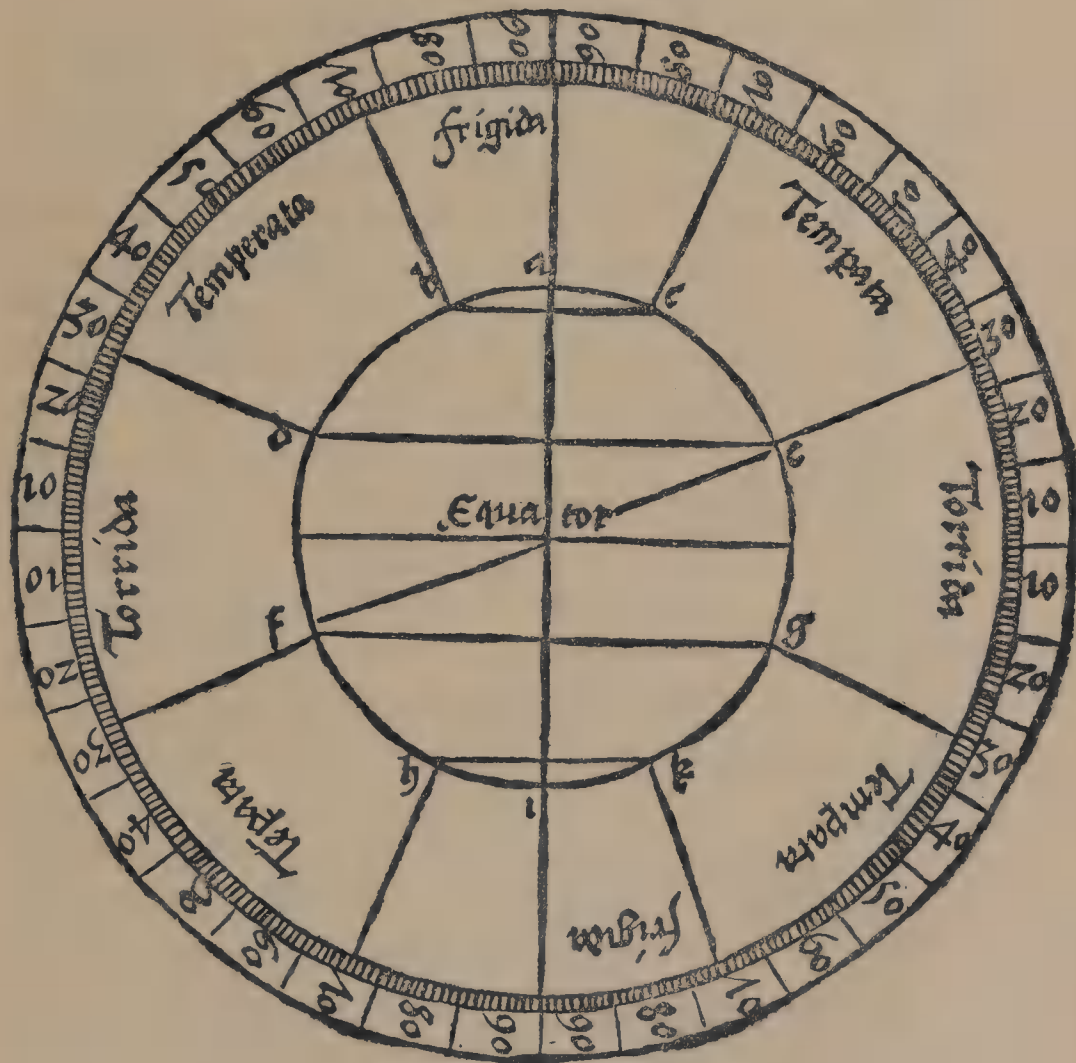
# RVDIMENTA

Quarta que par est / totidem

Quinta y<sup>o</sup> torrida & media gradus. 27. & 22. mi.

Sed horū quendam typum ponamus.

Polus Arcticus



Polus Antartct.

SPHERAE MATE.  
CAPVT SEXTVM  
DE PARALELLIS

Paralelli (qui & Almucantharat dicuntur) sunt circuli vel lineę quoquo versus / atq; ex omni parte æquedistantes / & nunq; si possent etiam in infinitum protrahi cōcurrentes. Qualis est in sphaera equator cum alijs quatuor circulis minoribus. Nō quia quantū primus a secundo / tantum secundus a tertio distet : nam hoc falsum est / vt ex præcedētibus liquet / sed q; quilibet duo circuli simul iuncti secūndū quālibet sui ptē eque abinuicē sint distātes. Nō enim est equator ex vnā parte altero tropicorū q; ex alia vicinior aut distantior / cum omni quac; a tropicis sicut prædiximus . 23. gradibus & . 51. minutis distet. Simili modo de tropicis ad duos extremos dicendum est : quorum vterq; ex omnibus suis partibus ab vtroq; . 22. gradibus & . 22. minutis distant.

Licet vō possent paralleli ad libitum cuiuslibet distantes describi nobis tamen pro faciliiori supputatione conuenientissimum visum est (quod et ipsi Ptholomeo placuit) vt tam in solida q; plana Cosmographiæ generalis descriptione ipsos tot gradibus abinuicē secerneremus / quot sequens formula ostendit. Cui etiā figura subiungetur in qua parallelos per terrā vtrūq; ad spheram cœli protrahemus.

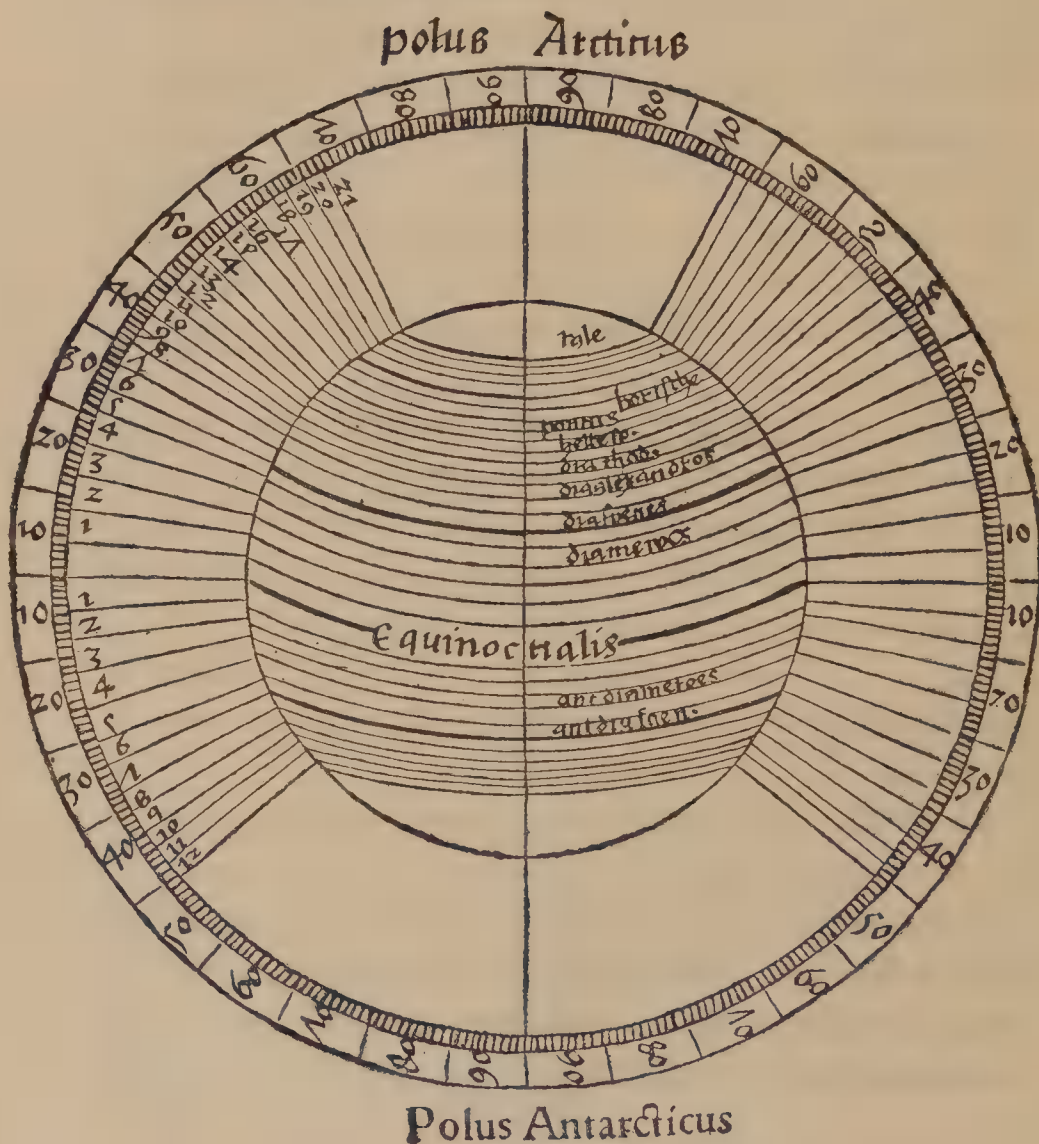
Paralelli ab equat.	gradus coeli	Hore dies rū ma.	Quot mill: fa. gra. vnus
------------------------	-----------------	---------------------	-----------------------------

21 Diatiles 8	63	20	28. $\frac{1}{2}$
20	61	19	
19	58	18	32. $\frac{1}{2}$
18	56	17	$\frac{1}{2}$
17	52	17	37. $\frac{1}{2}$
16 Diarhip. 7	51. $\frac{1}{2}$	16. $\frac{1}{2}$	20. $\frac{1}{2}$
15 Diabor. 6	28. $\frac{1}{2}$	16	22. $\frac{1}{2}$
12	25	15. $\frac{1}{2}$	22
13	23. $1\frac{1}{2}$	15. $\frac{1}{2}$	25
12 Diarhō. 5. 1	20. $\frac{1}{2}$ . $\frac{1}{3}$ . $1\frac{1}{2}$	15	27
11	38. $\frac{1}{2}$ . $1\frac{1}{2}$	12. $\frac{1}{2}$ . $\frac{1}{2}$	28. $\frac{1}{2}$
10 Diarhod. 2	36	12. $\frac{1}{2}$	50
9	33. $\frac{1}{3}$	12. $\frac{1}{2}$	
8 Diaalex. 3	30. $\frac{1}{3}$	12	52
7	27. $\frac{1}{2}$ . $\frac{1}{6}$	13. $\frac{1}{2}$ . $\frac{1}{2}$	
6 Diasienes 2	23. $\frac{1}{2}$ . $\frac{1}{3}$	13. $\frac{1}{2}$	57
5	20. $\frac{1}{2}$	13. $\frac{1}{2}$	
2 Diamero. 1	16. $\frac{1}{3}$ . $1\frac{1}{2}$	13	
3	12. $\frac{1}{2}$	12. $\frac{1}{2}$ . $\frac{1}{2}$	
2	8. $\frac{1}{3}$ . $1\frac{1}{2}$	12. $\frac{1}{2}$	
1	2. $\frac{1}{2}$	12. $\frac{1}{2}$	59
Aeq̃tor a polis eq̃ distans		12 cōtinuē	60
1	2. $\frac{1}{2}$	12. $\frac{1}{2}$	59
2	8. $\frac{1}{3}$ . $1\frac{1}{2}$	12. $\frac{1}{2}$	
3	12. $\frac{1}{2}$	12. $\frac{1}{2}$ . $\frac{1}{2}$	
2 Diameroes .	16. $\frac{1}{3}$ . $1\frac{1}{2}$	13	
5	20. $\frac{1}{2}$	13. $\frac{1}{2}$	

Climata cū gradibus parallelorū simul horas Insinuat numeris ista figura suis.

Para. & cli.	Gradus	Hore	Milliaria
6 Antidiasiens	$23.\frac{1}{2}\frac{1}{3}$	$13.\frac{1}{2}$	52
7	$27.\frac{1}{2}\frac{1}{6}$	$13.\frac{1}{2}\frac{1}{2}$	

Et ita deinceps vsus Antarcticum polū. Quod  
& subsequens figura cōmonstrat.



## RVDIMENTA

De climatibus caput. vii.

Licet clima proprię regio interpretetur/ hoc tamen loco spaciū terrę inter duas equedistantes appellatur/ in quo porrectissimę diei ab initio climatis vsq; ad finem dimidię horę variatio est. Et quottū aliquod clima ab equatore fuerit/ tot semihoris longissima eius loci dies superat diem nocti equalem. Suntq; ipsorum Septemgemia: quibus ad austrum nō sit septimum adhuc lustratum. Sed Boream versus Ptholomeus terram septem semihorarū spacio hospitalem & habitabilē inuenit: quę septem clima ab insigni aut Vrbe/ aut fluuiio/ aut mōte sua nomina sunt sortita.

Climata. 7.

Primū dicitur DiaMeroes/ a dia quod apud grecos per significat/ & casu patrio iungit. Atq; a Merore quę ē Africę ciuitas in torrida zona citra equatorem. 16. gradibus sita/ in quo parallelo & ipse Nilus esse inuenitur. Eius/ & subsequētium etiā initium medium & finem atq; maximę diei in quolibet ipsorum horas generale nostrū (pro cuius intelligentia hęc scribimus) tibi liquido ostendet.

DiaSienes a Siene Aegipti vrbe/ quod ē puicię Thebaidos principium.

DiaAlexandrias. Ab Alexandria insigni vrbe Africę Aegipti Metropoli: quam Alexander Magnus condidit: de quo dictū est a poeta. Vnus Pelleo iuueni non sufficit orbis.

a ij

## SPHERAE MAT.

**Rho-**  
**dos**      2      DiaRhodon /a Rhodo Afie minoris insula: quę  
& sui nominis in ea sitam nostra tempestate clarā  
ciuitatem habet/fortiter Thurcarū efferos bellicos  
q̃ impetus sustinentem/atq̃ profligantem genero  
sissime.

5      DiaRhomes /ab vrbe Europę notissima/iter Ita  
licas maxime clara/& insigni olim gentiū domitrio  
ce/atq̃ orbis capite/nūc patris patrū maximi sede.

6      DiaBorischenes /a magno Scytharū fluuiō qui  
est quartus ab Histro.

7      DiaRhipheon/a Ripheis montibus qui in Sar  
matica Europa insignes sunt perpetua niue candē  
tes.

Ab his insignibus locis per quę ferme climatū  
lineæ medię transeunt septem climata(quę Ptholo  
meus posuit)sua sortiuntur nomina.

Octauū Ptholomęus nō posuit/cum illud terre  
(quodcunq̃ est) ipsi incognitū a nuperioribus lus  
stratū sit.& dicitur Diatyles/quod ipsius principiū  
(qui est Paralellus ab equatore .21.) rectissime per  
Tylen sit ,ptensus.Est aut Tyle Septemtrionalis in  
**Virgili-**  
**us.**      fula de qua Maro noster/Tibi seruiet vltima Tyle:  
Et hęc de climatibus ab equatore Septemtrionē  
ꝑsus.Pari mō dicendū est de eis quę sūt vltra equi  
noctialē ad Austrum/quorū sex contraria nomina  
habentia sunt lustrata et dici possunt antidiaMero  
es/ antidiaAlexandrias/ AntidiaRhodon Antidia

## RVDIMENTA

Rhodes / antidiaBorischenes: = græca ꝑticula anti  
 q̄ oppositūvel cōtra denotat. Atq; in sexto climate  
 Antārticū versus / & pars extrema Africæ nuper  
 reperta & / Zamzibar / laua minor / & Seula insule  
 & quarta orbis pars (quam quia Americus inueuit  
 Amerigen / quasi Americi terrā / siue Americā nun Ameri  
 cupare licet) sitæ sunt. De quibus Australibns cli- ge  
 matibus hæc Pomponij Mellæ Geographi verba in  
 telligēda sunt / vbi ait. Zonę habitabiles paria agūt Pōpo:  
 anni tempora / verū nō pariter. Antichthones alte Mellæ  
 ram / nos alteram incolimus. Illius situs ob ardorē in  
 tercedentis plagę incognitus / huius dicendus est.  
 Vbi animaduertendum est quod climatū quodq;  
 alios q̄ aliud plerūq; foetus pducatur / cū diuersę sūt  
 naturę / & alia atq; alia syderū virtute moderentur.  
 Vnde Virgilius.

Nec vero terrę ferre omnes omnia possunt  
 Hic segetes / illic veniunt foelicius vug  
 Arborei foetus alibi / atq; iniussa virescunt  
 Gramina. Nōne vides croceos vt Thmolus odores  
 India mittit ebur; mittūt sua thura Sabgi  
 At Calybes nudi ferrū: virosq; pontus  
 Costerea. Eliadū palmas Ep iros equarū &c.

Vergi-  
 lius

### OCTAVVM CAPVT DE VENTIS.

Quoniā in superioribus ventorū aliquando in-  
 cidenter memores fuimns ( cū. s. polū Boreū / polū  
 Nothicū / atq; id genus alia diximus ) & ipsorū ce-

a in

## SPHERAE MAT.

gnitio nōnihil mōmēti imo magnā vtilitatē ad Cosmographiā habere dignoscit: ideo hoc subsequenti capite quēdā de ventis (qui & spiritus & flatus dicunt) trademus. Est igitur ventus (vt a Philosophis definitur) exhalatio calida & sicca lateraliter circa terram mota &c.

Quia vero sol secundū binos tropicos / & ipm equatorē triplicē ortū atq; occasū / æstiuālē. s. æquinoctialē / ac hyemalē seruat: et meridei similiterq; ipius septentrionis vtrinq; sint latera / quorū quolibet propriū ventū habēt: iō summatim. xij. sunt vēti / tres orientis / tres occidentis / totidē meridei / & medie noctis totidē: ex quibus quatuor qui ī seqnti formula mediū locū tenebūt pricipaliores sūt / alij minus prici.

		Oriens.	Occidens.
	Collat.	Trop. Canc.   κίεκιᾶδ	Chorus
	Medij.	Aequator.   Subsolāus.	Fauoni. q et Zephi.
Vento rū for ma.	Collat.	Trop. Cap.   Eurus qui & Vultum.	Africus q et Lybs
	Collat.	Meridies	Media nox
		Euronothus	Septētrio.
	Medij	Auster / qui & Nothus	Aquilo qui & Boreas.
	Collat.	Lybonothus	Trachias q & Circius.

## .RVDIMENTA

Poetę tñ mius pñcipales ( q et collatales dicũt)  
 p principalioribus ex licentia (vt suus sibi mos est) Ouidi:  
 vsurpare cõsueuerunt. Hinc & Ouidius ait

Eurus ad Aurorã Nabathęaq; regna recessit  
 Persidac; & radijs iuga subdita matutinis.  
 Vesper & Occiduo quę littora sole tepescunt  
 Proxima sũt Zephиро: Scythiam/septẽq; Triones  
 Horrifer iuuasit Boreas/contraria tellus  
 Nubibus assiduis/pluuioq; madescit ab Austro

Est autẽ Subsolani aura saluberrima /quę a sole  
 purior & subtilior alijs efficitur.

Zephyrus Caloris et humoris temperiem habẽs Vergi:  
 montiũ pruinas resoluit. Vñ ẽ illud Vergilij Liqui  
 tur et putris Zephиро se glęba resoluit.

Austri flatus crebro tempestatũ/pcellarũ /atq;  
 himbriũ pñlagus ẽ: Quare & Nazo infit. Madidis Ouidi:  
 Nothus euolat alis.

Aquilo suo rigore aquas ligat/atque constringit Virgi:  
 Vir. Et glacialis hyems Aquilõibus asperat vndas

His de ventis Gallinariũ nostrũ multę doctriņę Gallina  
 virũ sequẽtes quatuor edere versiculos memini. rius.

Eu rus et Eoo flat. Subsolanus ab ortu.

Flatibus occasum Zephyrusq; Fauonius implent:  
 Auster in extremis Lybię et Nothus ęstuat oris.  
 Sudificus Boreas Aquiloq; minatur ab axe.

Et licet vñ septentrionales sint natura frigidi/  
 nihilo tamen minus quando torridam zonam per a iij

## COSMOGRAPHIAE

transeunt/mitigantur:sicut & de Austro torridam  
Zonam anteaq̃ ad nos veniat transeunte/cōpertū  
est.Quod sequentibus versibus insinuatur.

Quoq̃ loco prodit gelidus furit Auster/ & arctis  
Cogit aquas vinculis/at dum per torrida flatu  
Sydera transierit/nostras captandus in oras  
Cōmeat:& Boreę seuissima tela reorquet

At contra Boreas nobis grauis/orbe sub imo  
Fit ratione pari moderatis leuior alis.

Cætera mox varios qua cursus flæmina mittunt  
Inmutant proprię naturam sedis eundo.

Hucusq̃ de ventis dictū sufficiat.Ponamus nūc  
harū omniū figurā vniuersalē:in qua sint poli/axes/  
circuli cū maiores tum etiam minores/oriens/occi/  
dens/quinq̃ zonæ/gradus lōgitudinis/latitudinis  
\* tam ipsius terre q̃ cœli/paralelli/climata/venti &c.

### CAPVT.IX.DE QVIBVSDAM COS- MOGRAPHIAE RVDIMENTIS.

Omne terre ambitū ad cœli spaciū puncti obti-  
nere rationem Astronomicis demonstrationibus  
constat.Ita vt si ad cœlestis globi magnitudinē cō-  
ferat/nihil spacij prorsus habere iudicet.Et huius  
quidem tam exigue in mundo regionis quarta fere  
portio est quę Ptholomeo cognita a nobis animan-  
tibus icolūt. Atq̃ in tris partes hæctenus scissa fuit.  
Europam/Africam/& Asiam.

## RVDIMENTA

Europa ab occidēte mari Athlantico/a septē. Britānico/ab oriēte Thanai/Meotide palude/et pōto: a meridie mari mediterraneo claudīt /habetq; in se Hispaniam/Galliam/Germaniā/Rhētiā/Italiam/Grēciam/ & Sarmatiam. Sic dicta a filia regis Agenoris eius nominis: quę dum virginibus Tirijs comitata in marino littore puellari studio luderet & canistra floribus stiparet/ab Ioue in thaurū niueum verso rapta illius tergo insedisſe /& per æquora pōti in Crētā delata terrę contra iacenti nomen dedisse creditur.

Africa ab occidente mari Athlantico/a meridie oceano Aethiopico/a Septemtrione mari mediterraneo/& ab ortu Nili flumine terminatur. Ea in se cōplectitur Mauritanias Tingitanam & Cæsariensem/Libiam interiorem/Numidiam(quā & Mapariam dicunt)minorem Africam( in qua est Chartago Rhomani imperij olim pertinax æmula )Cyreneicā/Marmaricam /Lybiam (quo etiā nomine tota Africa a Libe rege Maurithāię appellat) Aethiopiam interiorē/Aegiptū &c. Et dicūt Africa quod frigoris rigiditate careat.

Asia(quę cæteras magnitudine & opibus lōgissime vincit)ab Europa Thanai fluuiio/atq; ab Africa Ischmo( qui in Australem plagā distentus Arabię & Aegpti sinum perſcindit) ſecernit. Hęc principaliffimas regiones habet Bithiniam/Galatiam.

## COSMOGRPHIAE

Capadociam/Pamphiliam/Lidiam/Ciliciā/Armenias maiorē & minorē.Colchiden/Hircaniam/Hiberiam/Albaniā:et præterea mltas quas singulatim enumerare longa mora esset.Ita dicta ab eius nominis regina.

**America**  
**cā** Nūc ꝑo & hę partes sunt latius lustratę/& alia quarta pars per Americū Vesputiū(vt in sequentibus audietur)inuenta est/quā non video cur quis iure veter ab Americo inuentore sagacis ingenij viro Amerigen quasi Americi terrā / siue Americam dicendā:cū & Europa & Asia a mulieribus sua sortita sint nomina.Eius sitū & gentis mores ex his binis Americi nauigationibus quę sequuntē liquide intelligi datur.

**Priscianus,** Hunc in modū terra iam quadripartita cognoscit:et sunt tres primę partes cōtinentes/quarta est insula:cū omni quaq; mari circūdata conspiciat. Et licet mare vnū sit quēadmodū et ipsa tellus/multis tamen sinibus distinctum / & innumeris repletum insulis varia sibi noīa assumit:quę et in Cosmographiæ tabulis cōspiciunt/& Priscianus in tralatione Dionisij talibus enumerat versibus.

Circuit Oceani gurges tamen vndiq; vastus  
Qui quous vnus sit plurima nomina sumit.  
Finibus Hesperijs Athlanticus ille vocatur  
At Boreę qua gens furit Armiaspa sub armis  
Dicit ille piger necnō Satur.idē Mortuus est alijs:

## RVDIMENTA

Vnde tamen primo conscendit lumine Titan  
 Eoumque vocant atque Indum nomine pontum  
 Sed qua de uexus calidum polus excipit Austrum  
 Aethiopumque simul pelagus Rubrumque vocatur  
 Circuit oceanus sic totum maximus orbem  
 Nominibus varijs celebratus.

Mare  
 Eoum:  
 Indicū:  
 Aethio-  
 picum:

Perfecat Hesperiam primus qui porgit vndis  
 Pamphilumque latus Lybie preterendit ab oris  
 Sic minor est reliquis / maior quem Caspia tellus  
 Suscipit intrantem vastis Aquilonis ab vndis  
 Nomine Saturni quod Thetis possidet equor  
 Caspius iste sinus simul Hircanumque vocatur

Paphi-  
 licum:

Caspiū

At duo qui veniunt Australis ab equore ponti  
 Hic supra currens mare Persicus efficit altum  
 E regione situs / qua Caspia voluitur vnda

Hirca:  
 Persicum

Fluctuat et alter Panchæa que littora pulsat  
 Euxeni contra pelagus protentus in Austro

Ordine principium capiens Athlantis ab vnda  
 Herculeo celebrant quam mente munere Gades.  
 Celsiferaque tenet stans Athlas monte columnas  
 Est primus vastis qui pontus Hibericus vndis  
 Diuidit Europen Lybia communis utriusque

Athlan-  
 ticum  
 Hercu-  
 leum.

Hinc atque hinc statum sunt: ambe littora cernunt  
 Hæc Lybies hæc Europes aduersa tuendo.

Gallicus hunc gurgis: qui Celtica littora pulsat  
 Excipit: hunc sequitur Ligurum cognomine dictus  
 Qua domini rerum terris creuere Latinis.

Gallicū

Ad petram leucen Aquilonis ab axe reductus

## COSMOGRAPHIAE

- Quę freta Sicanię concludit littore curuo  
 Insula sed Cynos proprijs pulsatur ab undis.  
**Mare**     Intra fardonium pelagus Celtumq; refusis  
**Thyrre**   Inde salis tumidus Tyrrheni voluitur ęstus  
           Ad partes vergens australes/excipit istum  
**Siculū**   Sicanię gurgēs solis deflexus ad ortus:  
           Qui procul effusus Pachynis tenditur oris  
           Ad Crēten summā (quę prominet equore) rupem:  
           Qua Gortyna potēs medijs qua Phęstos in aruis  
           Arietis hanc rupem simulantem vertice frontem  
           Pro merito graj Criu dixere metopon.  
           Hoc mare Gargani concludit Iapygis ora:  
**Adria**   Illinc incipiens extenditur Adria vastus:  
**ticum.**   Ad Boream penetrans pelago solemq; cadentē  
**Ioniū.**   Ionius pariter sinus hic perhibetur ab orbe/  
           Diuidit & geminas diuersis partibus oras:  
           Quas tamen extremas cōiungit terminus vnus  
**Illicū.**   Ad dextram partē protenditur Illyris alma:  
           Post hanc Dalmatię populorū martia tellus  
           Ad leuam Ausonię porrectus continet Isthmos  
           Quę tria circundant maria vndiq; littore curuo  
           Tyrrhenum/Siculum/ necnon simul Adria vastus  
           Finibus at proprijs exceptant singula ventos  
           Tyrrhenum Zephyro: Siculum sed tundiť Austro.  
           Adria succurrens Eoo frangitur Euro.  
           At post Sicaniam tractu diffunditur alto  
**Syrtis**   Ad Syrtim pelagus/Lybicis quę cingitur oris:

## RVDIMENTA

Maio<sup>r</sup>em postquam minor excipit: æquora longe

Atq; sinu gemino resonantia littora pulsant

Finibus a Siculis Cretum tenditur æquor

Ad solis veniens ortus Salmonida poscens

Dicitur Eous qui Crète terminus esse:

Mare  
Cretū]

Post hanc est geminū mare vastū fluctibus atris

Fluctibus Hismarici Boreæ quod tunditur atris.

Quod ruit aduersus celsæ de partibus Arcti

Quod prius est Phariū perhibēt: hoc littora tãgit Phariū

Præcipitis casu montis: post vnda secunda

Sidoniū est pelagus: penetrat qua gurgite pontus. Sidoni

Ilicus Arctoas ad partes æquore vergens.

um

Non longe rectus: Cilicum nam frangitur oris.

Hinc Zephirus poscens veluti draco flectit vndis

Quod iuga montiuagus vastat: siluasq; fatigat:

Partibus extremis Pamphilia clauditur isto:

Atq; Chelidoniæ rupes cinguntur eodem

At procul hunc zephyrus finit Patarcide summa:

Post hæc Arctoas ad partes aspice rursus.

Ægeum /superat qui fluctibus æquora cuncta:

Ægeū

Dispersas vasto qui gurgite Cycladas ambit

Terminat hūc imbro pariter Tenedosq; coercēs

Angusta trahit qua fauce Propontidis vnda

Asia: quam supra populis distenditur amplis

Ad Notiam partem: qua latus ducitur Isthmos:

Threicius sequitur post Bosphorus ostia ponti:

bospho  
rus.

Hoc nullum perhibent terras angustius orbis

## COSMOGRAPHIAE

**Simple**  
**gades**    Esse fretum dirimens: hic sunt Symplegades arcē:  
 Panditur hic ponti pelagus Titanis ad ortus  
 Quod petit obliquo Boream solemq; meatu  
 Hinc atq; hinc medio percurrunt equore colles:  
 Vnus qui veniens Asię de parte Carambis  
 Dicitur australi: sed contra finibus alter  
 Prominet Europę hunc criu dixere metopon:  
 Ergo conueniunt aduersi gurgite tanto  
 Distantes quantū ternis transire diebus  
 Eualeat naus: bimarem sic equore pontum  
 Aspicias similem cornu quod flectitur arcus  
 Neruo curuati distento dextera neruum  
 Assimilat: recto trahitur nam linea ductu  
 Extra quam Boream quo scandit sola Carambis  
 Sed formam cornu geminatis flexibus edit  
 Littus: quod pontum cingit sub parte sinistra  
**Meotis**    In quam Meotis penetrans Aquilionis ad axes  
 Quam Scythię gentes circundant vndiq; ripis  
 Et matrem ponti perhibent Meotidis vndam.  
 Scilicet hic ponti vis exit gurgite multo  
**Thauri**    Cimmeriū torrens per Bosphoron hic vbi Thaurū  
**rus**        Cimmerij gelidis habitant sub finibus imum.  
 Hęc maris est species splendens hęc forma pfundi.  
 Est aut vt prædiximus mare plenum insulis e qui  
 bus maxime & principales iuxta Ptholomeum  
 hę sunt  
 Taprobana in mari Indico sub equatore

## RVDIMENTA

Albion quę & Britannia & Anglia

Sardinia in mari mediterraneo

Candia quę & Creta in sinu Aegeo

Selandia

Sicilia in mari mediterraneo

Corfyca

Ciprus

Extra Ptholomeum

Madagascar in mari Prasodo

Zamzibar

Iaua in Oceano Indico orientali

Angama

Peuta In oceano Indico

Seula

Zipangri in Oceano occidentali

Hę sunt ingentes quas cingit Tethyos vnda

Insulę: adhuc alię diuersis partibus orbis.

Diuerse plures fama latuere minores

Auris difficiles nautis vel portibus aptę

Quarū non facile est mihi promere nomina versu:

Cęterū vt vnus loci ab altero distantiam cognoscere possis poli eleuatio tibi cū primis cōsideranda venit. Annotandū igit̃ pauis quod (vt ex superioribus liquet) viuētibz sub paralelo equinoctiali vterq; polus in horizonte est. Eunt autē ad septentrionem eo magis subleuat̃ polus quanto plus aliquis ab æquatore discesserit. Quę poli eleuatio res

Priscianus

# COSMOGRAPHIAE

**Prolo-  
quium.**

gionū & locorū ab æquatore distantia demōstrat:  
Est eī tantus loci tractus ab æquatore cuius mē-  
surā scire desideras / quāta ē eleuatio poli ad zenith  
eiusdē. Ex quibus milliariū numerus facilis cogni-  
tu euadit / dū eundē p numerū eleuatiōis poli multi-  
plicaueris. Verū tñ nō sunt secūdū Ptholomæi sen-  
tentiā milliaria a circulo æquatoriali ad Arcton ubi  
q̄ gētū equales. Nā a primo equatoris gradu vsq̄  
ad duodecimū / q̄libet graduū sexaginta Italica mil-  
liaria cōtinet quę faciūt. 15 Germanica. Cōmuniter  
eī quatuor Italica pro vno Germanico reputant̃.  
Et a. 12. gradu vsq̄ ad. 25. quilibet. 59. milliaria facit  
quę sunt Germanis. 12.  $\frac{1}{2}$ .  $\frac{1}{2}$ . Atq̄ vt res fiat apertior  
ponemus formulam sequentem.

Gradus      Gradus.      Millia Ital.      Mil. Ger

Aequa- tor.	1	12	60	15
	12	25	59	14 $\frac{1}{2}$ $\frac{1}{4}$
	25	30	54	13 $\frac{1}{2}$
	30	31	50	12 $\frac{1}{2}$
	31	41	41	11 $\frac{1}{4}$
Tropi- cus.	41 usq̄ ad	51 faciunt	40	10
	51	51	32	8
	51	63	28	1
	63	66	26	6 $\frac{1}{2}$
	66	10	21	5 $\frac{1}{4}$
Circu.	10	50	6	1 $\frac{1}{2}$
Arcti.	80	90		0
Polus Arcti.				

## RVDIMENTA

Et ita quoque ab æquinoctiali versus polos ~~tam~~ antarcticum quæ arcticum graduū latitudinis cōtinens varia variatur. Quod si scire volueris quot ab ~~uno~~ loco ad alium milliaria sint/perpende diligenter in quibus gradibus latitudinis sint talia loca & quot gradus medient/ deinde vide in formula superiori quot milliaria talis gradus habeat & multiplica numerū milliariū per numerū mediorū graduū/ atque milliariū numerus resultabit: quæ cū Italica fuerint diuidas per quatuor/ & Germanica habebis.

Hæc per inductione ad Cosmographiā dicta sufficiāt si te modo ammonuerimus prius/nos in depingendis tabulis typi generalis nō omnimodo sequutos esse Ptholomeū/præsertim circa ~~novis~~ terras ubi in cartis marinis aliter animaduertimus equatorem cōstitui quæ Ptholomeus fecerit. Et proinde nō debēt nos statim culpare qui illud ipsum notauerint. Consulto enim fecimus quod hic Ptholomeū/alibi cartas marinas sequuti sumus. Cū & ipse Ptholomeus quinto capite primi libri. Non omnes continentis partes ob suæ magnitudinis excessum ad ipsius peruenisse noticiam dicat/ et aliquas quemadmodum se habeant ob peregrinantium negligentiam sibi minus diligenter traditas/alias esse quas aliter atque aliter se habere cōtingat ob corruptiones & mutationes in quibus per parte corruisse cognite sunt. Fuit igitur necesse (quod ipse sibi etiā faciundū ait) ad nos

Note

Ptholomeus.

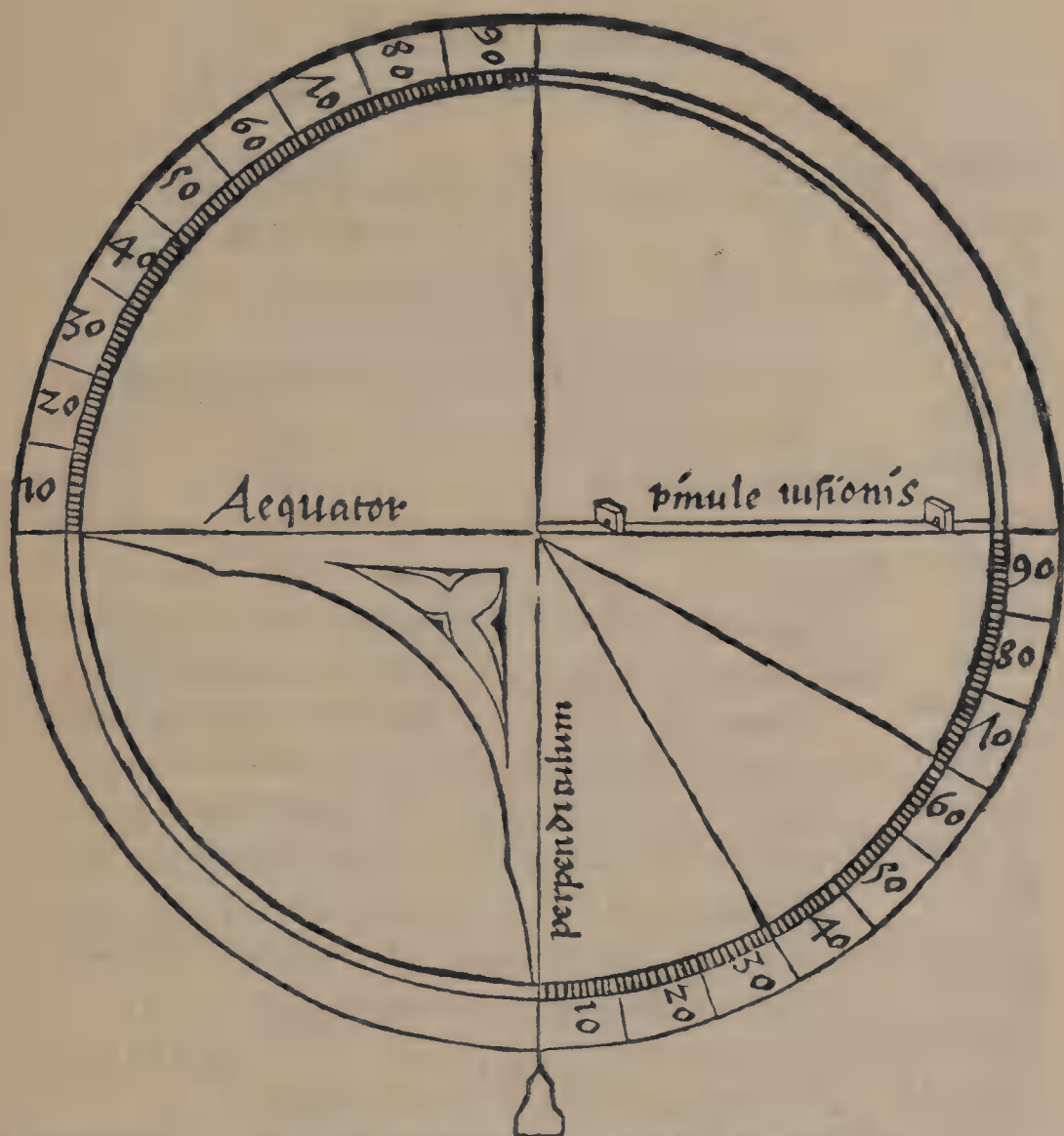
b

## APPENDIX

uas temporis nostri/ traditiones magis intendere:  
Et ita quidem temporauimus rem /vt in plano circ  
ta nouas terras & alia quępiam Ptholomeū: in so  
lido vero quod plano additur descriptionē Ameri  
ci subsequenter sectati fuerimus.

## APPENDIX

Annectamus adhuc superioribus anteaq̃ rece  
ptui canamus eleuationis poli atq̃ ipsius zenith ac  
centri horizontis & climatū quadrantē velut parer  
gon & quoddā corolariū. Quamuis si recte cons  
siderauerimus is quadrans de quo dicemus non sit  
ad has res impertinēs. Colmogrophū eī vel maxi  
me poli supra caput eleuationē/zenith/& terre cli  
mata cognoscere oportet. Formať itaq̃ idem qua  
drans hoc pacto. Diuide quęcunq̃ circulū in par  
tes quatuor/ita quod duę diametri se in centro ad  
angulos rectos inter secent: quarū vnā( quę altera  
sui parte pinnulas habet)axem polorū mūdi/& al  
terā equatorem significabit. Deinde eā partē circuli  
quę est inter semiaxem pinnulas habentem & alte  
ram semidiametrum in partes. xc. diuidas /atq̃ op  
positā in totidem/ figasq̃ perpendiculū ad cētrum  
& paratus erit quadrans. Cuius hic est vsus. Verte  
eū ita vt p̃ pinnularū foramina polū directe videas  
& ad quod clima atq̃ in quē gradū perpendiculū  
reciderit/ eo ip̃o climate et eleuationis gradu tua re  
gio/ quinetiā zenith atq̃ horizontis centrū existit.



Haftenus exequuti capita proposita/hic ipsas longinquas expaciationes sequēter introducamus Vespūtij /singulorum factorum exitum circa institutū tradentes.

Finis introductionis

b ij

**Philaeus Vogesigena  
Lectori**

<b>Nilus:</b>	Rura papirifero qua florent pingua Syro
<b>Lacus</b>	Et faciunt Lunę magna fluentia lacus
<b>Lunę</b>	Adextris mōtes sūt Ius/Danchis/quoq; Mascha
<b>Ius.</b>	Illorum Aethiopes inferiora tenent
<b>Dāchis</b>	Aphrica consurgit quibus e regionibus aura
<b>Masc.</b>	Afflans cum Libico feruida regna Notho.
<b>Aethio</b>	Ex alia populo Vulturū parte calenti.
<b>pes.</b>	Indica veloci per freta calle venit.
<b>Aphric</b>	Subiacet hic equo noctis Taprobana circo
<b>cus.</b>	Bassaq; Prasodo cernitur ipsa salo
<b>Libo</b>	Aethiopes extra terra est Bassamq; marinā
<b>nothus</b>	Non nota e tabulis o Ptholomę tuis.
<b>Vultur</b>	Cornigeri Zenith tropici cui cernitur hirci
<b>nus.</b>	Atq; comes multę funditor ipse aquę.
<b>Tapro</b>	Dextrorsum immenso tellus iacet equore cincta
<b>bana.</b>	Tellus/quam recolit nuda caterua virum
<b>Marę</b>	Hanc quem clara suum iactat Lusitania regem
<b>Praso.</b>	Inuenit missa per vada classe maris.
<b>Pars a</b>	Sed quid plura: sitū/gentis moresq; repertę
<b>phricę i</b>	Americi parua mole libellus habet.
<b>uenta.</b>	Candide sincero voluas hunc pectore lector
<b>Ameri</b>	Et lege non nasum Rhinocerotis habens
<b>ge.</b>	

• Teod.

# QVATVOR AMERICI VES- SPVTII NAVIGATIONES

Eius qui subsequente

rarum descriptio

nē de vulgari

Gallico in

Latinū

trāstu

lit.

Decastichon ad lectorem:

Aspicias tenuem quisquis fortasse logiam  
Nauigium memorat pagina nostra placens:

Continet inuentas oras/gentesq; recenter

Lētificare sua quę nouitate queant.

Hęc erat altiloquo prouincia danda Maroni

Qui daret excelsę verba polita rei.

Ille quot ambiuit freta cantat Troius herōs:

Sic tua Vesputi vela canenda forent.

Has igitur lectu terras visurus/in illis

Materiam libra: non facientis opus:

Item distichon ad eundem

Cum noua delectent fama testante loquaci

Que recreare queunt hic noua lector habes

o TeAod.

h m

Illustrissimo Renato Iherusalem  
& Sicilię regi/duci Lotho-  
ringię ac Barñ. Ame-  
ricus Vesputius huius  
milē reuerentiā &  
debitā recōmē-  
dationem.

Fieri pōt illustrissime Rex vt tua maiestas mea  
ista temeritate ducatur in admirationē: propterea  
quod hasce litteras tam prolixas ad te scribere non  
subuerear/ cum tamen sciam te continuo in ardu-  
is consilijs & crebris reipublicę negocijs occupatissi-  
mum. Atq; existimabor forte non modo presum-  
ptuosus/ sed etiam ociosus: id mihi muneris vendi-  
cans/ vt res statui tuo minus cōuenientes non de-  
lectabili sed barbaro p̄sus stilo (veluti amusus ab  
humanitatis cultu alienus) ad Fernandū Castilię re-  
gem nominatim scriptas/ ad te quoq; mittam. Sed  
ea quā in tuas v̄tutes habeo cōfidentia/ & cōperta  
sequentiū rerū neq; ab antiquis neq; neotericis scri-  
ptarum veritas me corā. t. M. fortassis excusabunt.  
Mouit me imprimis ad scribendum p̄sentiū lator  
Beneuenutus. M. t. humilis famulus/ & amicus me-  
us nō p̄cēnitendus/ qui dum me Lisbone reperiret  
precatus est vt. t. M. rerū per me quatuor p̄fectis  
onibus in diuersis plagis mundi visarum/ participē  
facere vellem. Peregi em̄ bis binas nauigationes ad  
nouas terras inueniendas: quarū duas ex mandato  
Fernandi inclyti regis Castilię per magnū oceanū

finum occidentē vsus fœci/alteras duas iussu Mas  
nuelis Lusitanię regis ad Austrū. Itaq; me ad id ne  
gocij accinxi sperās q̃ .t. M. me de clientulorū nu  
mero nō excludet: vbi recordabit̃ q̃ olī mutuā ha  
buerimus inter nos amiciciā tēpore iuuentutis nrę  
cū grāmaticę rudimēta imbibentes sub pbata vita  
& doctrina venerabil' & religiosi fratris de. S. Mar  
co Fra. Georgij Anthonij Vesputij auunculi mei  
pariter militaremus. Cuius auunculi vestigia vti  
nam sequi potuissem/alius profecto( vt & ipse Pe  
trarcha ait) essem q̃ sum. Vtcūq; tñ sit/nō me pu  
det esse qui sum. Semper em̃ in ipsa ṽtute & rebus  
studiosis summā habui delectationē. Quod si tibi  
hę narrationes omnino non placuerint: dicam sicut  
Plinius ad Męcenatē scribit Olim facetijs meis de  
lectari solebas. Et licet. M. t. sine fine ī reipublicę ne  
gocijs occupata sit/nihilominus tantū tēporis qñ  
q̃ suffuraberis/vt has res q̃uis ridiculas(quę tamē  
sua nouitate iuuabūt) pellegere possis. Habebis em̃  
hisce meis lris post curarū fomēta & meditamēta  
negociorū nō modicā delectationē/sicut et ipse fœ  
niculus prius sumptis esculentis odorē dare & me  
liorē digestionē facere asueuit. Enim vero si plus eq̃  
plixus fuero/veniā peto. Vale.

Inclytissime rex sciat. t. M. quod ad has ipsas rea  
giones mercādi causa primū venerim. Dumq; per  
qdrenniū reuolutionē ī eis rebus negociosus essem

b iij

## ANTELOQVIVM

et varias fortunę mutatiōes animaduernerem / atq;  
vide rem quo pacto caduca & transitoria bona ho-  
minem ad tempus in rotę fumo tenerēt / & deinde  
ipsum precipitarent ad imū qui se possidere multa  
dicere poterat: constitui mecū varijs taliū rerum ca-  
sibus exanclatis istiusmodi negocia dimitte / et me-  
orū laborum finem in res laudabiliores ac plus sta-  
biles ponere. Ita disposui me ad varias mundi par-  
tes cōtemplandas / & diuersas res mirabiles viden-  
das. Ad quā rem se & tēpus & locus oportune ob-  
tulit. Ipse em̃ Castilię rex Fernandus tunc quatuor  
parabat naues ad terras nouas occidentem versus  
discooperiendas / cuius celsitudo me ad talia inuesti-  
ganda in ipsam societate elegit. Et soluimus vigesi-  
ma die Maij. Mcccc. xcvij. de portu Calicię iter no-  
strū per magnū oceani sinū capientes: in qua pro-  
fectione. xvij. consumauimus menses / multas inue-  
nientes terras firmas / & insulas pene innumerabi-  
les vt plurimū habitatas / quarū maiores nostri men-  
tionem nullam fecerunt. Vnde & ipsos antiquos  
taliū non habuisse noticiā credimus. Et nisi memo-  
ria me fallat memini me in aliquo legere / quod ma-  
re vacuum et sine hominibus esse tenuerint. Cuius  
opinionis ipse Dantes Poeta noster fuit / vbi duo-  
deuigesimo capite de inferis loquens Vlissis mor-  
te cōfingit. Quę autē mirabilia viderim / in sequen-  
tium processu. T. M. intelliget.

## PRINCIPIVM

**TERRARVM INSVLARVMQVE VA-**  
riarum Descriptio : quarum vestuti nō meminerūt  
autores Nuper ab anno incarnati domini. M. cccc  
xcvñ. bis geminis nauigationibus in mari discursis/  
inuentarū: duabus videlicet in mari occidentali per  
dominū Fernandum Castilię/reliquis vero duabus  
in Australi ponto per dominū Manuelē Portugal  
lię serenissimos reges/ Americo Vesputio vno ex  
Naucleris nauiumq; p̄fectis p̄cipuo/ subsequē  
tem ad p̄fatum dominū Fernandum Castillię re  
gem/de huiusmodi terris & insulis edente narratio  
nem.



**ANNO DOMINI . M. CCCC.**  
xcvñ. xx. mensis Maij diē/nos cum  
iij. conseruantē nauibus Calicium  
exeuntes portum/ad insulas (solim  
fortunatas/nūc vero magnam Ca  
nariam dictas) in fine occidentis ha

bitati positas in tertio climate: sup quo/ extra ho  
rizontem earum/se. xxvñ. gradibus cū duobus ter  
tijs/septentrionalis eleuat polus/distātesq; ab hac  
ciuitate Lisbona in qua cōscriptum extitit hoc p̄  
sens opusculum. cc. lxxx. leucis: vento inter meri  
diem & Lebeccium ventum spirante/cursu primo  
pertigimus. Vbi (nobis de lignis/aqua/ceterisq; ne  
cessarijs prouidendo) cōsumptis octo fere diebus  
nos (facta in primis ad deum oratione) eleuatis de

## NAVIGATIO

hinc ventotraditis velis/ nauigationem nostrā per  
Ponentē incipiētes: sumpta vna Lebecch quartā:  
tali nauigio transcurrimus vt. xxvij. vix elapsis die  
bus terrē cuidā applicaremus: quā firmā fore existi  
mauimus. Distatq̃ Canarię magnę ab insulis. M.  
(vel circiter) leucis: extra id quod in zona torrida  
habitatū est. Quod ex eo nobis constitit: q̃ Septē  
trionalē polū extra huiuscemodi telluris horizontē  
xvi. gradibus se eleuare/ magisq̃ occidentalē. lxxv.  
q̃ magnę Canarię īsulas gradibus existere cōspexi  
mus: put instrumenta oīa mōstrabāt. Quo ī loco (ia  
ctis de prora āchoris) classē nostrā/ leuca a littore cū  
media distantē/ restare coegimus: nonnullis solutis  
phaselis armis & gēte stipatis/ cū quibus ip̃m vsq̃  
ad littus attigimus. Quo q̃ primū puenimus: gentē  
nudam secundū littus euntem innumeram percepi  
mus. Vnde nō paruo affecti fuimus gaudio. Om̃es  
em̃ qui nudi incedere conspiciebant: videbant̃ quo  
q̃ propter nos stupefacti vehementer esse. Ex eo  
(vt arbitror) q̃ vestitos/ alteriusq̃ effigiei q̃ forēt/  
nos esse intuiti sunt. Hij postq̃ nos aduenisse co  
gnouerunt/ omnes in propinquū montē quendam  
aufugerūt: a quo tunc nec nutibus nec signis pacis  
et amicitie vllis/ vt ad nos accederēt allici potuerūt. Ir  
ruente vero interea nocte/ nos classē nostrā male  
tuto in loco (vbi nulla marinas aduersus procellas  
tuta residentia foret) cōsidere timentes: cōuenimus

## PRIMA

una/vt hinc(mane facto)discederemus:exquirere  
musq; portū quempiam/vbi nostras statione in tu  
ta collocaremus naues. Qua deliberatiōe arrepta/  
nos vento secundū collē spiranti traditis velis/post  
q;(visu terram ipsam sequendo/atq; ipso plage in  
littore/gentes cōtinue percipiendo)duos integros  
nauigauimus dies:locum nauibus satis aptum com  
perimus.In quo media tantū leuca distantes ab ari  
da/constituimus:vidimusq; tunc inibi innumerabi  
lem gentiū turbam/quam nos cominus inspicere/  
& alloqui desiderantes:ipsamet die littori cū cymo  
bis & nauiculis nostris appropiauimus:necnon &  
tunc in terram exiuius/ordine pulchro.xl.circiter  
viri huiuscemodi gente se tamen a nobis & cōfor  
tio nostro penitus alienam prēbēte.Ita vt nullis eā  
modis ad colloquiū cōmunicationemue nostrā alli  
cere valuerimus:prēter ex illis paucos/q; multos  
post labores ob hoc susceptos/tandem attraximus  
ad nos dando eis nolas/specula/certos cristallinos  
aliaq; similia leuia/ qui tum securi de nobis effecti/  
conciliatum nobiscum/necnon de pace& amicitia  
tractatum venerunt. Subeunte autem interim  
nocte/nos ab illis nosmet expedientes (relictis eis)  
nostras regressi sumus ad naues.Postea vero sub  
sequentis summo diluculo diei/infinitam in littore  
virorum & mulierum paruulos suos secum ve  
stantium gentem rursus conspeximus cognoui

## NAVIGATIO

musq; multitudinē illam supellectilem suam secum deferre totam / qualem infra suo locum diceſ. Quorum q̄plures q̄plurimum terrę appropiauimus se met in equor proñcientes (cum maximi natatores existent) quantus est balistę iactus nobis venerunt natantes obuiam / suscepērūtq; nos humaniter: atq; ea securitate & confidentia seipſos inter nos commiscuerunt ac si nobiscū diutius antea cōuenissent & pariter frequentius practicauiſſent : pro qua re tunc per parum oblectati fuimus. De quorum moribus (quales eos habere vidimus) hic / quando quidem se cōmoditas offert / interdum etiam interserimus.

De moribus ac eorum  
viuendi modis.

### VANTVM AD VITAM/EORVM

q̄ q̄ mores omnes: tam mares q̄ scemine nudi penitus incedunt tectis non aliter vestrendis q̄ cum ex vtero p̄dierunt. Hñ mediocris existentes stature multum bene proportionati sunt quorū caro ad rufedinē (veluti leonū pili) igit: qui si vestimētis operti mearēt albi (credo) tāq; nos extarēt. Nullos habēt in corpe pilos p̄terq; crines q̄s

## PRIMA

peccatos nigrescentesque gerunt/ & presertim foemine  
que propterea sunt tali longo nigroque crine decorae.  
Vultu non multum speciosi sunt quoniam latas facies tataris  
adsimilatas habent/ nullos sibi sinunt in superciliis  
oculorumue palpebris ac corpore toto( crinibus  
demptis)excescere villos/ob id quod habitos  
in corpore pilos quid bestiale brutaleque reputant.  
Omnes tam viri quam mulieres siue meando siue cur-  
rendo leues admodum atque veloces existunt: quoniam (ut  
frequenter experti fuimus) in se etiam mulieres una  
aut duas percurrere leucas nihil putant/ & in hoc nos  
christicolae multum precellunt. Mirabiliter ac ultra  
quam sit credibile natant: multo quoque melius foemine  
quam masculi quod frequenti experimento didicimus  
cum ipsas etiam foeminas omni prorsus sustentamine  
deficientes duas in equore leucas pernatere per-  
speximus. Arma eorum arcus sunt & sagittae/ quas  
multum subtiliter fabricare norunt. Ferro metallisque  
alijs carent: sed pro ferro bestiarum pisciumue den-  
tibus suas sagittas armant/ quas etiam (ut fortiores  
existant) una quoque sepe perurunt. Sagittarii sunt  
certissimi. Itavt quicquid voluerint iaculis suis feri-  
ant: nonnullisque in locis mulieres quoque optime sa-  
gittatrices extant. Alia etiam arma habent veluti lan-  
ceas praecutaeque fudes/ necnon & clavas capita mi-  
rifice laborata habentes. Pugnare potissimum assue-  
ti sunt aduersus suos alienigenae linguae confines com-

## NAVIGATIO

tra quos nullis parcendo (nisi vt eos ad actiora tormenta reſeruent) multum crudeliter dimicāt. Et cū in prēlium properant ſuas ſecum vxores (non beligeraturas / ſed eorum poſt eos neceſſaria perlaturas) ducūt / ob id q̄ ſola ex eis mulier tergo ſibi plus imponere poſſit / & deinde .xxx. xl. v. leucis ſubuehere (prout ipſi ſēpe vidimus) q̄ vir (etiam validus) a terra leuare queat. Nulla belli capita nulloſue pręfectos habent / quinymmo (cū eorum quilibet ex ſe dominus extet) nullo ſeruato ordine meant. Nulla regnandi dominiū ſuum extendendi aut alterius inordinatę cupiditatis gratia pugnant ſed veterem ſolum ob inimiciciam in illis ab antiquo inſitam: cuiusquidem inimicicię cauſam interrogati nullā aliā indicant niſi vt ſuorum mortes vendicent antecelſorum. Hęc gens ſua in libertate viuens nulliq̄ obediens nec regem nec dominū habet. Ad prēliū autē ſe potiſſimum animant & accingunt cum eorū hoſtes ex eis quempiam aut captiuum detinent aut interemerunt. Tūc em̄ eiſdem captiui interemptiue conſanguineus ſenior quiſq̄ exurgens exit cito in plateas & vicos paſſim clamitans inuitanſq̄ omēs & ſuadens vt cum eo in prēlium conſanguinei ſui necem vindicaturi properent: qui omnes cōpaſſione moti mox ad pugnam ſe accingunt atq̄ repente in ſuos inimicos irruunt. Nulla iura / nullamue iuſticiam ſeruant; malefactores ſuos nequaquam pu

## PRIMA

niunt/quumymmo nec parentes ipsi paruulos suos edocent aut corripunt. Mirabiliter eos inter sese conquestionari nonnunq̃ vidimus. Simples in loquela se ostentant, verum callidi multum atq̃ astuti sunt. Perraro / & summissa voce loquuntur / eisdē quibus vtimur accentibus vtentes. Suas vt plurimum voces inter dentes & labra formantes: alijs vtuntur vocabulis q̃ nos. Horū plurimę sunt ydionatū varietates quoniā a centenario leucarum in centenariū diuersitatem linguarum se mutuo nullatenus intelligentiū reperimus. Cōmessandi modū valde barbarum retinent: nec quidem notatis manducant horis / sed siue nocte siue die quotiens edendi libido suadet. Solo manducantes accumbunt / & nulla mantilia nullaue gausapa (cū lineamentis pannisq̃ alijs careant) habent. Epulas suas atq̃ cibaria in vascula terrea quę ipsimet cōfingunt / aut in medias cucurbitarum testas ponunt. In retiaculis quibusdam magnis ex bombice factis & in aere suspēsis dormitant: qui modus q̃uis insolitus & asperior fortassis videri queat / ego nihilominus talē dormitandi modum suauem plurimum iudico. Etenim cum in eisdem eorū retiaculis mihi plerumq̃ dormitasse contigerit / in illis mihi metipsi melius q̃ in tapetibus quas habebamus esse persensi. Corpore valde mūdi sūt et expolitī / ex eo q̃ se ipsos frequētissimē

## NAVIGATIO

me lauant. Et cum egestum ire (quod salua dixerint reuerentia) coacti sunt/ omni conamine nitunt̃ vt nemine perspici possint: qui quidem in hoc quanto honesti sunt tanto in dimittenda vrina se in mundos inuerecundosq; tam mares q̃ foemine prebent/ cum siquidem illos nobiscum loquentes & coram positos suam impudicissime vrinam sepius emisisse perspexerimus. Nullā legē/ nullū legitimū thori fœdus ī suis cōnubijs obseruat/ quinymmo quot quot mulieres quisq; cōcupiscit/ tot habere & deinde illas quodcūq; volet (absq; hoc q̃ id pro iniuria aut opprobrio habeant) repudiare potest. Et in hac re vtiq; tam viri q̃ mulieres eadē libertate fruantur. Zœlo si parū/ libidinosi vero plurimū extāt: magisq; foemine q̃ masculi: quarum artificia vt insatiabili suę fatissaciant libidini hic honestatis gratiā subticenda censuimus. Eę ipsę in generandis paruulis fœcundę admodū sunt: neq; dū grauidę effectę sunt penas aut labores euitant. Leuissimo minioq; dolore pariunt. Ita vt in crastinum alacres sanateq; vbiq; ambulent: presertimq; post partū in flumen quodpiam sese ablutū vadunt/ tumq; sanę munda tēq; inde (veluti piscis) apparent. Crudelitati autē ac odio maligno adeo deditę sūt/ vt si illas sui forsitan exacerbauerint viri/ subito certū quoddā efficiunt maleficiū: cū q̃ p̃ ingēti ira p̃ prios fœtus ī p̃ prijs vteris necāt abortiūtq; deinde: cuius rei occasiōe īfiniti

## PRIMA

eorum paruuli peteant. Venuſto & eleganti ppor-  
tione cōpacto corpore ſunt Ita vt in illis quīquā  
deforme nullo inſpici modo poſſit Et quāuis diſ-  
nude ambulent inter ſæmina tamen earum/ pudī-  
bunda ſic honeſte repoſta ſunt vt nullatenus vide-  
ri queant præterquam regiuncula illa anterior quā  
verecundiore vocabulo pectusculum ymū voca-  
mus quod & in illis vtiq; non aliter q̄p honeſte na-  
tura ipſa videndum reliquit Sed & hoc nec quidē  
curant qm̄ vt paucis expediam nō magis in ſuorū  
viſione pudendorū mouent q̄p nos in oris noſtri/  
aut vultus oſtententatiōe. Admirandā per valde  
rem ducerent mulierē in eis mammillas pulpas ve-  
laxas aut ventrem rugatū ob nimiū partū habentē  
cum omnes equæ integre ac ſolide poſt partū ſem-  
per appareant ac ſi nūq̄ peperiffent. Hee quidem  
ſe noſtri cupientiffimas eſſe monſtrabant. Nemis  
nem in hac gente legem aliquam obſeruare vidi-  
mus nec quidem iudei aut mauri nuncupari ſoli-  
de q̄neuit cūm ipſis gentilibus aut paganis mul-  
to deteriores ſint Etenim nō perſenſimus q̄ ſacriſi-  
cia vlla faciant aut q̄ loca orationisue domos ali-  
quas habeant. horum vitā( quę omnino voluptuo-  
ſa eſt) Epycuream exiſtimo illorum habitationes  
ſingulis ipſis ſunt communes/ Ipſeq; illorum do-  
mus campanarum inſtar cōſtructe ſunt firmiter ex  
magnis arboribus ſolidate palmarū folijs deſuper  
c

## NAVIGATIO

contecte & aduersus ventos & tempestates tutissimè nonnullisq; in locis tam magnè vt in illarū vnica sexcentas esse personas inuenerimus. Inter quas octo populosissimas esse cōperimus sic vt in eis essent habitarentq; pariter animarū decē milia. Octēnio quolibet aut septennio suas sedes habitationes transferūt/qui eius rei causam interrogati naturale responsum dederūt dicentes q; phebi vehementis estus occasione hoc facerēt ob id q; ex illorū longiore in eodem loco relidentia aer infectus corruptusq; redderetur quæ res in eorū corporibus variis causaret egritudines quæquidē eorū ratio nō male sumpta nobis visa est Eorum diuitiæ sūt variorū colorū auium plumæ aut in modū lapillorum illorū quos vulgariter pater noster vocitamus lamine siue calculi quos ex piscium ossibus lapillis ve viridibus aut candidis faciunt & hos ornatus gratia sibi ad genas labia vel aures suspendunt. Alia quoq; similia futilia & leuia pro diuitijs habēt quæ nos omnino parui pendebaramus. Cōmutatiōibus aut mercimonijs in vendendo aut emendo nullis vtuntur quibus satis est quod natura sponte sua propinat Aurum vniones iocalia ceteraq; similia quæ in hac Europa pro diuitijs habemus nihil extimant imo penitus spernunt nec habere eurant. In dando sic naturaliter liberalissimi sunt vt nihil quod ab eis expetatur abnegent. Et quemadmodum in dando li-

## PRIMA

berales sunt sic in petendo & accipiendo cupidissimi postq̃ se cuiquam amicos exhibuerint. Maximum potissimumq̃ amicicie sue signum in hoc perhibent q̃ tam vxores q̃ filias proprias amicis suis pro libito habendas offerunt in qua re parens vterq̃ se longe honoratū in existimat cum natā eius & si virginem ad concubitū suum quispiam dignatur & abducit & in hoc suam inter se amiciam potissimum cōciliant. Varns in eorū decessu multiq̃ modis exequis vtuntur. Porro suos nōnulli defunctos in humo cum aqua sepeliūt & inhumant illis ad caput victualia ponentes quibus eos posse vesci & alimentari putant nullum deinde ppter eos alium planctum aut alias cerimonias efficientes. Alij quibusdam in locis barbarissimo atq̃ inhumanissimo sepeliendi vtuntur modo. Quippe cū eorum quēpiam mortis momento proximum autumant illū eius propinquiores in siluam ingentem quamdam deferunt vbi eū in bombiceis retiaculis illis in quibus dormitant impositum & recubantē ad duas arbores in aera suspendunt ac postmodum ductis circa eū sic suspensum vna tota die choreis irruente iterim nocte ei aquā victūq̃ aliū ex q̃ quatuor aut circit̃ dies viuere q̃at ad caput apponūt & deinde sic inibi solo pendēte relicto ad suas habitatiōes redeūt quibus ita pactis si isdē egrotus postea māducat & bibat ac inde ad cōualescentiam sanitatemq̃

c ij

## NAVIGATIO

redeat & ad habitationē ppriam remeet illū eius  
affines ac propinqui/cū maximis suscipiūt cerimo  
nijs At perpanci suut qui tā grande prētereant pe  
riculū cū eos ibidem nemo postea vīset qui si tūc  
inibi forsan decedūt nullā aliam habent postea se  
pulturā. Alios quoq; complures barbaros habent  
ritus quos euitande plixitatis hic omittimus gra  
tia. Diuersis varijsq; medicamibus in suis morbis  
& egritudinibus vtunt quę sic a nostris discrepant  
& discōueniunt vt miraremur haud parū qualiter  
inde quis euadere posset Nempe vt frequenti didi  
cimus experientia cū eorū quēpiā febricitare cō  
tigerit hōra qua febris eum asperius inquietat ipm  
in frigentissimā aquā immergūt & balneant post  
modumq; per duas horas circa ignem validū (do  
nec plurimum caleſcat) currere & recurrere cogūt  
& postremo ad dormiendum deferunt quoque  
dem mēdicamento cōplures eorū sanitati restituf  
vidimus. Dietis etiā (quibus tribus quatuor ve die  
bus absq; cibo & potu persistunt) frequentissimis  
vtunt. Sanguinē quoq; sibi persepe cominuūt nō  
in brachijs (salua ala) sed in lumbis & tiliarū pul  
pis. Seipsos etiam ad vomitū cū certis herbis quas  
in ore deferunt medicaminis gratia plerūq; prouo  
cant & multis alijs remedijs antidotisq; vtunt quę  
longum dinumerare foret Multo sanguine multos  
q; flegmatico humore habundant cibariorū suorū

## PRIMA

occafioe q̄ ex radicibus/fructibus/herbis/varijſq̄  
piſcibus faciunt. Omni farris granorūq̄ aliorum ſe  
mine carent Cōmunis vero eorum paſtus ſiue vi  
ctus arborea radix quedam eſt quā in farrinā ſatis  
bonā cōminuunt & hanc radicem quidam eorum  
iucha alij chambi alij vero ygnami vocitant. Alijs  
carnibus/præterq̄ hominū per raro veſcunt in qui  
busquidem hominū carnibus vorandis ſic in huma  
ni ſunt & inmanſueti vt in hoc omnē feralem om  
nem ve beſtialē modū ſuperent. omnes em̄ hoſtes  
ſuos quos aut perimunt aut captos detinēt tam vi  
ros q̄ fæminas indiſtincte cum ea feritate deglutie  
unt vt nihil ferum/nihil ve brutū magis dici vel in  
ſpici queat quosquidē ſic eferos imaneſq̄ fore / va  
rijs in locis mihi frequentius contigit aſpexiſſe mi  
rantibus illis q̄ inimicos noſtros ſic quoq̄ nequa  
quam manducaremus. Et hoc pro certo maietas  
veſtra regia teneat Eorū cōſuetudines (quas pluris  
mas habent) ſic barbare ſunt vt hic nunc ſufficiens  
ter ſatis enarrari nō valeāt. Et qm̄ in meis hiſce bis  
geminis nauigatōibus/tam varia diuerſaq̄ ac tam  
a noſtris rebus & modis differētia perſpexi Idcir  
co libellū quēpiam (quē quattuor dietas ſiue qua  
tuor nauigationes appello) cōſcribere parauī con  
ſcripſiq̄ in quo maiorem rerū a me viſarū partē di  
ſtincte ſatis/iuxta ingenioli mei tenuitatē /collegi.  
Verūtamen non adhuc publicauī. In illo vero qm̄  
c in

## NAVIGATIO

om̃ia particulariter magis ac singillatim tangenda  
idcirco vniuersalia hic solūmodo p̃sequens ad na-  
uigationem nostrā priorem perficiendā a qua pau-  
lis̃ per digressus fueram iam redeo.

**I**N HOC NAVIGII NOSTRI PRIMORDIO  
notabil' cōmoditatis res/nō vidimus idcirco (vt opi-  
nor) q̃ eorū linguā nō capiebamus pr̃terq̃ nōnul-  
lā auri denorantiā/quod nōnulla indicia in tellure il-  
la esse monstrabant. Heccine ỹo tellus quo ad sui  
sitū positionēq̃ tam bona est vt vix melior queat.  
Cōcordauimus aut vt illā derelinquētes lōgius na-  
uigationē p̃duceremus. Qua vnanimitate suscep-  
ta/nos dehinc aridā ip̃am collateraliter semp̃ sectā-  
tes necnō gyros m̃ltos scalasq̃ plures circūeuntes  
& interim cū m̃ltis varijsq̃ locorū illorū incolis cō-  
ferentiā habentes /tandē certos post aliquot dies  
portui cuidā applicuimus/in quo nos grandi a peri-  
culo altitono spiritui cōplacuit eripere. Huius em̃  
modi portū q̃primū introgressi fuimus populatio-  
nē vnā eorū hoc est pagū aut villā super aquas ( vt  
Venetię)positā cōperimus/in qua ingētes.xx.edes  
aut circiter erāt in modū campanarū vt pr̃tactum  
est effectę atq̃ sup̃ ligneis vallis solidis & fortibus  
firmiter fundatę/pr̃e quarū porticibus leuaticj pō-  
tes portecti erant per quos ab altera ad alterā tam  
q̃ per cōpactissimam stratā transitus erat.Igit̃ huius-  
iūsmodi populatōis incolę q̃primū nos intuitu ita

## PRIMA

sunt magno propter nos timore affecti sunt/ & ob rem suos confestim pontes omnes cōtra nos eleua uerunt & sese deinde in suis domibus abdiderunt Quā rem p̄spectantibus nobis & haud parē admi rantibus ecce duodecim eorū lintres v̄l circiter/ sin gulas ex solo arboris caudice cauatas (quo nauium genere vtuntē) ad nos interim per equor aduentare conspeximus/ quorū naucleri effigiem nostrā habi tūq; mirantes ac sese circū nos vndiq; recumferen tes nos eminus aspiciebāt. Quos nos quoq; ex ad uerso prospicientes/ plurima eis amicicię signa de dimus/ quibus eos/ vt ad nos intrepidi accederent/ exhortabamur/ quod tñ efficere cōtēpserunt. Quā rem nobis p̄cipientibus mox ad eos remigare ince pimus/ qui nequāq; nos p̄stolati sūt quinymmo om̄s cōfestim in terram fugērt datis nobis interim signis vt illos paulisper expectaremus. Ip̄i em̄ extē plo reuersuri forent. Tumq; in montē quendā ppe rauērt/a q̄ eductis bis octo iuuencl̄ & i lintribus suis p̄fatis vna secū assūptis mox vsus nos regres si sūt. Et post hęc ex iuuencl̄ ip̄is q̄tuor i singul̄ na uiū nr̄arū posuerūt/quē faciēdi modū nos haud parē admirati tūc fuimus/ put v̄ra satis p̄pēdere p̄t ma iestas. Cēterūq; cū lintribus suis p̄missis int̄ nos na uesq; nr̄as cōmixti sūt & nobiscū sic pacifice locuti sūt vt illos amicos nr̄os fidelissimos esse reputare mus. Intēa v̄o ecce q̄q; ex domibus eorū p̄mēoratis

c iij

## NAVIGATIO

gens non modica per mare natitans aduentare cepit quibus Ita aduenientibus & nauibus nr̄is iam appropinquare incipientibus nec tñ proinde malū quitq̃ adhuc suspicaremur rursū ad earūdē domorū eorū fores/vetulas nōnullas cōspeximus quę immaniter vociferantes & ccelū magnis clamoribus implentes sibimet/in magne anxietatis indicium proprios euellebāt capillos quę res magnā mali suspicionem nobis tunc attulit Tumq̃ subito factū est vt iuencule ille quas in nr̄is imposuerant nauibus mox ī mare p̄silerent ac illi qui in hincubus erant se se a nobis elongantes mox contra nos arcus suos intenderent nosq̃ durissime sagittarent. Qui yō a domibus per mare natantes adueniebant singuli latentes in vndis lanceas ferebant ex quibus eorū proditiōē cognouimus Et tum nō solum nosmet magnanimit̄ defendere verū etiam illos grauit̄ offendere incepimus Ita vt plures eorum fascellos cum strage eorū nō parua perfregerimus & penitus in ponto submerferimus p̄pter quod reliquis faselis suis cū damno eorū maximo relictis per mare natantes omnes in terram fugerunt inter emptis ex eis.xx. vel circiter vulneratis yō pluribus & ex nostris quicq̃ dumtaxat lesis qui omnes ex dei gratia incolumitati restituti sūt Comprehēdimus autē & tunc ex pretactis iuenculis duas & viros tres ac dehinc domos eorū visitauimus & in illas introi-

## PRIMA

uimus verꝝ ī eis quicquā (nisi vetulas duas et egro-  
tātem virū vnicū) non inuenimus. quasquidē eo-  
rum domos igni succendere nō voluimus ob id qđ  
cōscientię scrupulū hoc ipsum esse formidabamus  
Post hęc autem ad naues nostras cū pręactis cā-  
ptiuis quinq; remeauimus & eosdē captiuos / prę-  
terq; iuenculas ipsas / in compedibus ferreis alliga-  
uimus Eedē ꝑo iuencule captiuorq; viroꝝ vnus  
peruenienti nocte a nobis subtilissime euaserūt his  
itaq; peractis. Sequenti die concordauimus vt re-  
lictō portu illo longius secundū collem procedere-  
mus percursisq; .lxxx. fere leucis gentem aliā quam  
dam cōperimus lingua & conuersationē penitus a  
priore diuersam Cōuenimusq; vt classē inibi no-  
stram anchoraremus & deinde in terram ipā / cū  
nauculis nostris accederemus. Vidimus autē tunc  
ad littus in plaga gentiū turbam. iij. M. personarū  
vel circiter existere qui cū nos appropriare persen-  
serunt nequaq; ncs pręstolati sunt quinymmo cun-  
ctis quę habebant relictis omnes in siluas & nemo-  
ra diffugerūt Tum vero in terrā prosiliētes / & viā  
vnā in siluas tendentē / q̄tus est baliste iactus / p  
ambulantes mox tentoria plura inuenimus quę ibi  
dem ad piscandū gens illa tetenderat & in illis co-  
piosos ad de coquendas epulas suas ignes accende-  
rat / ac pfecto bestias ac p̄es variarū specierū pisces  
iam assabat Vidimus autē inibi certū assari animal

## NAVIGATIO

quod erat (demptis alis quibus carebat) serpenti si  
millimū tamē brutū ac siluestre apparebat vt eius  
nō modicū miraremur feritatē. Nobis vero per ea  
dem tentoria longius p̄gredientibus plurimos hu  
iuscemodi serpētes viuos inuenimus qui ligatis pe  
dibus ora quoq; finibus ligata ne eadē aperire pos  
sent habebāt/put de canibus aut feris alijs ne mor  
dere queant effici solet. Aspectū tam ferū eadē prę  
fererūt animalia vt nos illa venenosa putantes nul  
latenus auderemus cōtingere. Capreolis in magni  
tudine brachio vero cū medio in longitudine equa  
lia sunt. Pedes longos materialesq; multū ac fortis  
bus vngulis armatos necnon & discolorē pellē di  
uersissimā habēt/rostrūq; ac faciē veri serpētis ge  
stant/a quorū naribus vsq; ad extremā caudam se  
ta quedā per tergū sic protendiť vt animalia illa ve  
ros serpentes esse iudicaretur/& nihilominus eis  
gens p̄fata vescit. Panē suū gēs eadem ex piscibus  
quos in mari piscant efficiūt. Primū em̄ pisciculos  
ipsos inferuent aqua aliquantisper excoquūt. Des  
inde vero contundunt & cōpstant & in panes cō  
glutinant q̄s super prunas insuper torrēt & tandē  
inde postea manducāt/ hos quidē panes p̄bātes q̄  
bonos esse repimus. Alia quoq; q̄m̄lta esculēta cis  
bariaq; tam in fructibus q̄ in varijs radicibus reti  
nent q̄ longū enumerare foret. Cum aut a siluis ad  
q̄s aufugerāt nō redirēt nihil de rebus eorū (vt amō

## PRIMA

plius de nobis securi fierēt) auferre voluimus quibz  
nymmo in eisdē eorū tentorijs p̄m̄ta de reculis no  
stris in locis q̄ perpēdere possent derelinquētes ad  
naues n̄ras sub noctē repedaui. Sequenti v̄o  
die cū ex oriri titan inciperet infinitā in littore gen  
tē existere p̄cepimus ad q̄s in terrā tūc accessimus.  
Et q̄uis se n̄ri timidos ostēderēt seip̄os tñ iter nos  
permiscuerūt & nobiscū praēticare ac cōuersari cū  
securitate ceperūt amicos n̄ros se plurimū fore per  
simulantes/insinuantesq̄ illic habitatiōes eorū non  
esse/verū q̄ piscandi gr̄a aduenerāt. Et idcirco rogi  
tātes vt ad eorū pagos cū eis accederemus ip̄i etem̄  
nos tamq̄ amicos recipere vellent et hāc quidē de  
nobis cōceperāt amiciciā captiuorū duorū illorū (q̄s  
tenebamus) occasiōe/qui eorū inimici erāt. Visa āt  
eorū magna rogādi importunitate cōcordauimus.  
xxiij. ex nobis cū illi i bono app̄atu cū stabili mente  
(si cogeret necessitas) oēs strenue mori Cū itaq̄ no  
biscū per tres extitissent dies & tres cū eis p̄ plagā  
terrāq̄ illā excessissemus leucas/ad pagū vnū nouē  
dumtaxat domorū venimus vbi cū tot tamq̄ bar  
baris cerimonijs ab eis suscepti fuimus vt scribere  
penna nō valeat/vtputa cū choreis & cāticis ac plā  
ctibus hilaritate & leticia mixtis/necnō cū fercul̄ ci  
barijsq̄ m̄ltis. Et ibidē nocte illa requieui. vbi  
pprias vxores suas nobis cū p̄i p̄digalitate obtule  
rūt/q̄ quidē nos sic iportūe sollicitabāt vt vix eisdē

## NAVIGATIO

resistere sufficeremus postq̃ aut̃ illic nocte vna cu  
media die perstitimus/ingēs ad mirabilē pp̃s abs  
q̃ cūctatiōe stuporeq̃ ad nos inspiciedos aduenit  
q̃r̃ seniores nos q̃q̃ rogabāt vt secū ad alios eorū  
pagos (qui lōgius in terra erāt) cōmearemus quod  
et quidē eis ānuimus Hic dictu facile nō ē q̃ptos ip̃i  
nobis ip̃ederēt honores Fuimus aut̃ apud q̃m̃ltas  
eorū populatiōes/per itegros nouē dies cū ip̃is ~~cun~~  
tes ob quod nobis n̄ri q̃ in nauibus remāserāt retu  
lerūt socj se idcirco plerūq̃ ī anxietate timoreq̃ nō  
minio extitisse. Nobis aut̃ bis nouē leucis aut circi  
ter ī eorū terra existētibus ad naues n̄ras repedare  
proposuimus Et quidē nostro in regressu tam co  
pioſa ex eis virorū ac mulierū multitudo accurnit  
qui nos vsq̃ ad mare proſecuti sunt/vt hoc ipsum  
mirabile foret. Cumq̃ nostri quemp̃iā ex itinere fa  
tigatū iri cōtingeret ip̃i nos subleuabāt & in suis  
retiaculis ī quibus dormitāt studiosissime subuehe  
bant. In transitu quoq̃ fluminū quę apud eos pluri  
ma sunt & maxima/sic nos cum suis artificijs secu  
re trans mittebāt vt nulla vsq̃ pericula pertimesce  
rimus. Plurimi etiā eorū nos comitabant rerū sua  
rū onusti/quas nobis/dederāt illas ī retiaculis illis  
quibus dormiūt vectantes plumaria videlicet prę  
ditiā necnō arcus multos/sagittasq̃ multas/ ac infi  
nitos diuerſorū colorum psitacos Alij quoq̃ com  
plures supellectilem suā totā ferentes animalia etiā

## PRIMA

fortunatū se foelicemq; putabat qui in transmeandis aquis nos in collo dorso vesuo trāsuectare poterat Quāprimū autē ad mare pertigimus & fascelos nostros conscendere volumus in ipso fascelorū nostrorū ascensu tanta ipsorum nos cōmitantiū et nobiscū ascendere cōcertantiū ac naues nostras videre cōcupiscentiū pressura fuit vt nostri Idem faseli pene pre pondere submergerent/in ipsis autē nostris eisdem faselis recepimus ex eis nobiscū quot quot potuimus ac eos ad naues nostras vsq; perduximus Tanti etiam illorū per mare natantes & vna nos cōcomitantes aduenerūt vt tot aduentare molestiuscule ferremus cū siquidē pluresq; mille in nostras naues licet nudi & inermes introiuisent/apparatum artificiūq; nostrū necnō & nauīū ipsarū magnitudinem mirantes Ast tunc quiddam risu dignū accidit Nam cū machinarū/tormentorūq; bellicorū nostrorū quedā exonerare cōcuperemus et ppter hoc(imposito igne)machinę ipsę horridissime tenuissent pars illorū maxima( audito huiuscemodi tonitruo)sese in mare natitans percipiant veluti solite sunt rane in ripa sidētes quę si fortassis tumultuosum quitquā audiunt sese in pfundum luti latitaturę iminergūt /quemadmodum & gens illa tunc fecerunt illiq; eorū qui ad naues auferantē sic tunc perterriti fuerūt vt nos facti nostri nosmet rephenderemus. Verū illos mox secus

## NAVIGATIO

ros esse fecimus nec amplius stupidos esse permisi-  
mus insinuantes eis q̃ cū talibus armis hostes nos-  
tros perimeremus. Postq̃ aut̃ illos illa tota die in  
nauibz n̄is festiuę tractauimus ipsos a nobis abi-  
turos esse monuimus qm̄ seq̃nti nocte nos ab hinc  
abscedere cupiebamus. Quo audito / ip̄i cū summa  
amicicia beneuolentiaq̃ mox a nobis egressi sunt.  
In hac gente eorūq̃ terra q̃ multos eorū ritus vidi  
cognoui q̃ in quibus hic diutius imorari nō cupio  
Cum postea nosse v̄stra queat maiestas qualiter  
in quauis nauigationū harū m̄arū magis admirandā  
annotatuq̃ digniora cōscripserim ac in libellum  
vnū stilo geographico collegerem quē libellū quas-  
tuor dietas intitulaui & in quo singula particularit̃  
& minutim notaui sed hactenus a me non em̄si ob  
id q̃ illū adhuc reuiscere collationareq̃ mihi necesse  
est Terra illa gente multa populosa est ac multis di-  
uersisq̃ animalibus & nostris paucissime similibus  
vndiq̃ densissima. Dēptis leonibus v̄sis ceruis sui-  
bus capreolisq̃ & dāmis quę & quidē deformitas  
tem quādā a nostris retinent equis ac mulis asinif-  
q̃ & canibus ac omni minuto pecore (vt sunt oues  
& similia) nec nō & vaccinis armētis penitus carēt/  
verūtamen alijs q̃ plurimis variorū generū anima-  
libus (quę nō facile dixerim) habundantes sunt sed  
tamen omnia siluestria sunt quibus in suis agendis  
minie vtunt̃. Quid plura? Hī tot tantisq̃ diuersis

## PRIMA

rum modorū ac colorū pennarūq; alitibus fecūdi  
sunt vt id sit visu enarratuq; mirabile regio siqui-  
dem illa multum amena fructiferaq; est/siluis ac ne-  
moribus maximis plena quæ omni tempore virēt  
nec eorum vniq; folia fluunt. Fructus etiam innu-  
merabiles & nostris omnino dissimiles habent hec  
cine tellus in torrida zona sita est directe sub paras-  
llo qui cancri tropicū describit vñ polus orizons  
tis eiusdē se. xxiij. gradibus eleuat in fine climatis se-  
cundi Nobis aut inibi existentibus nos cōtēplatū  
populus multus aduenit effigiem albedinemq; no-  
stram mirantes quibus vnde veniremus sciscitanti-  
bus e. cœlo inuisende terre gratia nos descendisse  
respondimus quod & vtiq; ipsi credebāt in hac tel-  
lure baptisteria fontesq; sacros plures instituimus  
in quibus eorum infiniti seipsos baptisari fecerunt  
se eorū lingua charaibi hoc est magnę sapientię vi-  
ros vocantes Et prouincia ipsa Parias ab ipsis nun-  
cupata est. Postea aut portū illum terramq; derel-  
inquētes ac secundū collē transnauigantes & ter-  
ram ipsam visu semper sequentes. Dccc. lxx. leucas  
■ portu illo percurrimus facientes gyros circuitusq;  
q; interim multos & cum gentibus multis conuer-  
santes practicantesq;. Vbi in plerisq; locis aurę (sed  
nō in grandi copā) emimus cū nobis terras illas re-  
perire & si ī eis aurę foret tūc sufficeret cognoscere  
Et quia tunc. xij. iam mensibus in nauigationē nrā

## NAVIGATIO

perstiteramus et naualia nra apparatusq; nostri totū pene consumpti erant hominesq; labore perfracti Cōmunem inter nos de restaurandis nauiculis nostris quę aquā vndiq; recipiebant & repetunda hyspania iniuimus cōcordiam in qua dum persistere remus vnanimitatē prope portū vnū eramus totius orbis optimū in quem cū nauibus nostris introeuntes: gētem ibidē infinitā inuenimus quę nos cū magna suscepit amicitia in terra autē illa nauiculā vnā cum reliquis nauiculis nostris ac dolijs nouam fabricauimus ipsasq; machinas nostras ac tormenta bellica quę in aquis vndiq; pene peribant in terram suscepimus nostrasq; naues ab eis exonerauimus & post hęc in terrā traximus et refecimus correximusq; & pēnitus reparauimus. In qua re eiusdem telluris incole nō paruū nobis adiuuamen exhibuere quinymmo nobis de suis victualibus ex affectu largiti spontē sua fuere propter quod inibi per pauca de nostris cōsumpsimus quāquidē rem ingenti pro beneplacito duximus cum satis tenuia tunc teneremus cum quibus hyspaniam nostram nō (nisi indigentes) repetere potuissemus. In portu aut illo. xxxviij. diebus perstitimus frequentius ad populationes eorū cum eis euntes vbi singuli nobis non paruum exhibebant honorem. Nobis aut portum eundem exire & nauigationē nostrā reflectere concupiscentibus conquesti sunt illi gentem

## PRIMA

quamdā valde ferocē & eis infestam **existere**/qui certo anni tempore per viam maris in ipsam eorū terrā per insidias ingressi nunc pditione/nūc p vim q̄ multos eorū interimerent manducarentq; deinde. Alios v̄o in suā terrā suasq; domos captiuatos ducerent/contra quos ipi se vix defendere possent nobis insinuantes gentē illam quamdā inhabitare insulā quē ī mari leucis centū aut circiter erat. Quā rem ipsi nobis cū tanto affectu ac querimonia **com**memorauerūt vt eis ex condolentia magna crederemus/pmitteremusq; vt de tantis eos vindicaremus iniurijs/ppter quod illi loetantes nō parū effecti/ sese nobiscum venturos sponte sua propria obtulerūt/quod plures ob causas acceptare recusauimus demptis septem quos data conditione recepimus vt soli in suis lintribus ī propria remearēt/ qm̄ reducendorū eorū curā suscipere nequaquā intenebamus cui conditioni ipsi q̄gratanter acquieuerūt. Et ita illos amicos nostros plurimū effectos de relinquētes ab eis abcessimus. Restauratis aut̄ reparatisq; naualibus nostris/septē per gyrū maris (venio in̄ grēcū & leuantē nos ducente) nauigauimus dies Post quos plurimis obuiauimus insulis quarū quidē alię habitate alię v̄o desertę erāt. Harū igitur vni tandē appropinquātes & naues nostras inibi sistere facientes/vidimus ibidem q̄ maximū gentis aceruū qui insulam illā lty nuncuparent quibus

d

## NAVIGATIO

prospectis & nauiculis phaselisq; nostris viris val-  
dis & machinis tribus stipatis terrę eidem vicinius  
appropinquātes. iij. C. viros cū mulieribus q̃m̃ltis  
iuxta littus esse conspeximus qui vt /de prioribus.  
habitū est om̃s nudi meantes/corpe strenuo erāt/  
necnō bellicosi plurimū validiq; apparebant/cum  
liquidē om̃s armis suis arcubus videlicet & sagitt-  
is lanceisq; armati essēt/ quorum quoq; cōplures  
parmas etiā q̃drataue scuta gerebāt q̃bus sic opor-  
tune sese p̃muniebāt vt eos ī iaculādis sagittis suis  
in aliquo nō impedirēt. Cumq; cū phaselis nostris  
terrę ipsi q̃ptus est sagittę volatus appropiassemus  
om̃s citius in mare p̃silierunt & infinitis emissis sa-  
gittis sese contra nos strenue(ne in terrā descende-  
re possemus) defendere occeperūt. Om̃s vero p̃ cor-  
pus diuersis coloribus depicti & varijs volucrū p̃e-  
nis ornati erant/quos hñ qui nobiscū venerāt aspi-  
cientes illos ad p̃gliandū paratos esse quotiescun-  
q; sic picti aut aurum plumis ornati sunt nobis insi-  
nuerūt. Intantū aut introitū terrę nobis impediērūt  
vt saxiuomas machinas nostras in eos coacti fueri-  
mus emittere/quarę audito tumultu impetucq; viso  
necnō ex eis pleriq; in terrā mortuis decidisse pro-  
spectis/om̃s interrā sese receperunt. Tumq; facto  
inter nos consilio. xliij. de nobis in terrā post eos cō-  
cordauimus exilire & aduersus eos magno animo

## PRIMA

pugnare quod & quidē fecimus. Nā tū aduersum illos in terram cū armis nostris profiluimus / cōtra q̃ illi sic sese nobis opposuerūt vt duabus ferme horis cōtinuū inuicē gesserimus bellū / p̃ter id q̃ de eis magnā faceremus victoriam demptis eorū p̃cipuicis quos balistarij colubrinarij q̃ nostri suis interemerunt telis quod idcirco ita effectū ē quia seip̃s a nobis ac lāceis ensibus q̃ nostris subtiliter subtrahēbāt. Verūtamen tanta demū in eos incurrimus violentia vt illos cū gladijs mucronibus q̃ nostris cominus attingeremus. Quos quidē cū p̃sensissent om̃es in fugā per siluas & nemora conuersi sunt / ac nos campi victores (interfectis ex eis vulneratis q̃ plurimis) deseruerunt. Hos aut̃ pro die illa longiore fuga nequaquā insequi voluimus / ob id q̃ fatigati nīmīū tūc essemus quin potius ad naues ñras cum tanta septem illorum quę nobiscum venerant remeauimus læticia vt tantum in se gaudium vix ipsi suscipere possent. Sequēti aut̃ aduētātē die vidimus per insulam ipsam copiosam gentium appropinquare cateruam cornibus instrumentis q̃ alijs quibus in bellis vtuntur buccinantem / qui & quosque depicti omnes ac varijs volucrū plumis ornati erant. Ita vt iutueri mirabile foret quibus perceptis ex inito rursum in nos deliberauimus cōsilio vt si gens hęc nobis inimicicias pararet / nosmet om̃es

d ij

## NAVIGATIO

in vnū cōgregaremus videremusq; mutuo semper  
ac interim satageremus vt amicos nobis illos effi-  
ceremus / quibus amiciciā nostrā nō recipientibus  
illos quasi hostes tractaremus / ac quotquōt ex eis  
cōprehendere valeremus seruos nostros ac manci-  
pia perpetua faceremus / & tunc armatiores vt po-  
tuimus circa plagā ipsam ī gyrū nos collegimus. Il-  
li vero (vt puto prę machinarū nostrarū stupore)  
nos in terram tunc minime phibuerunt exilere. Ex-  
iuius igitur in eos in terram quadrariam diuisi.  
Iviij. viri singuli decurionē suū sequentes / & cū eis  
longū manuale gessimus bellum. Verūtamen post  
diuturnam pugnā plurimūq; certamen necnō in-  
teremptos ex eis multos / omnes in fugā coegimus  
& ad vsq; populationē eorum vnam persecuti fui-  
mus vbi comprehensis ex eis. xxv. captiuis eandē  
eorum populationē igni cōbussimus & insuper ad  
naues nostras cū ipsis. xxv. captiuis repedauimus  
interfectis ex eadem gente vulneratisq; plurimis /  
ex nr̄is aut̄ interēpto dūtaxat vno sed vulneratis.  
xxij. qui oēs ex dei adiutorio sanitatē recuperaue-  
rūt. Ceterū aut̄ recursu ī patriā p nos deliberato or-  
dinatoq; viri septem illi qui nobiscū illuc venerant  
quorū quinq; in prēmisso bello vulnerati extiterāt  
phaselo vno in insula illa arrepto cū captiuis septē  
(quos illis tribuimus) tres videlicet viros & quatu-  
or mulieres in terram suā cū gaudio magno et ma-

## SECVNDA

gna viriū nostrarū admiratione regressi sūt. Nosq̃  
hyspanię viam sequentes Caliciū tandem repetiui  
mus portū cum. CC.xxij. captiuatis personis. xv.  
Octobris die Anno dñi. M. cccclxxxix. Vbi letissi  
me suscepti fuimus / ac vbi eosdē captiuos nostros  
vendidimus. Et hęc sunt quę in hac nauigatiōe no  
stra priore annotatu digniora cōspeximus.

### De secundarię nauigatiōis cursu

VANTVM AD SECVNDARIE  
nauigationis cursum & ~~ea~~ quę in illa me  
moratu digna conspexi / dicei in sequen  
tibus. Eandem igit̃ inchoantes nauigatio  
nem Calicium exiuius portū Anno dñi M. cccc  
lxxxix. Maij die. Quo exitu facto nos cursum no  
strum Campiuiridis ad insulas arripientes necnō  
ad insularum magnę Canarię visum transabeun  
tes in tantū nauigauimus vt insulę cuidam quę igr̃  
nis insula dicii applicaremus / vbi facta nobis de li  
gnis & aqua p̃uisione & nauigatione nostra rur  
sum p̃ Lebecciū vētū incepta est. Post enauigatos  
xix. dies terrā quādā nouā tandē tenuimus / quam  
quidē firmā existere censuimus cōtra illā de qua fa  
cta in superioribus mētio est / & quę quidē terra in  
zona torrida extra lineam equinoctialem ad partē  
Austri sita ē supra quā meridionalis polus se. v. ex  
d iij

## NAVIGATIO

altat gradibus extra quodeuncq; clima distatq; eadem terra ■ prænominatis insulis vt per Lebecium ventū cōstabat leucis. cccc. In qua terra dies cū noctibus equales. xxvij. lunij cum sol in cancri tropico est existere reperimus. Eandē terrā in aquis oīno submersam necnon magnis fluminibus pfusam esse iuuenimus / quę et quidem semet plurimū viridem et procēras altissimasq; arbores habentē monstrabat vnde neminē in illa esse tunc percēpimus. Tum vero cōstitimus & classem nostrā anchorauimus solutis nonnullis phaselis cū quibus. in terram ipsam accedere tentauimus. Porro nos aditum in illam querētes & circū eam sepius gyrantes ipsam vt pręactū est sic fluminū vndis vbicq; perfusam inuenimus vt nusq; locus esset qui maximis aquis nō immadesceret. Vidimus tñ interim per flumina ipsa signa q̄ multa quemadmodū ipsa eadem tellus inhabitata esset & incolis mltis fecunda. At qm̄ eadē signa cōsideraturi in ipsam descendere nequebamus / ad naues nr̄as reuerti cōcordauimus quod & quidē fecimus. Quibus ab hinc exanchoratis / postea int̄ Leuantē & Seroccū ventū / collateralit̄ secundū terram ( sic spirante vento ) nauigauimus / pertentantes sepius interim pluribus q̄. xl. durantibus leucis si in ipsam penetrare insulam valeremus Qui labor oīs inanis extitit. Cū siquidē illo in latere maris fluxū qui a Serocco ad Magistralē abibat sic violentū cōpererimus vt idem mare se nauigabi

## SECVNDA

le nō prēberet. Quibus cognitis incōuenientibus consilio facto cōuenimus / vt nauigiū nostrū p̄ mare ad Magistralē reflecteremus. Tumq̄ secūdū terram ip̄am intātū nauigauimus vt tandē portui vni applicaremus / qui bellissimā insulam bellissimūq̄ sinū quendam in eius ingressu tenebat / supra quē nobis nauigantibus vt in illū introire possemus inmensam in insula ipsa gentiū turbam a mari quatuor leucis aut circiter distātē vidimus. Cuius rei grā lētati nō parū extitimus. Igit̄ paratis nauiculis nr̄is vt in eandē insulā vaderemus lintrē quādā in qua p̄sonę complures erant ex alto mari venire vidimus p̄pter quod tūc couenimus vt eis inualis ip̄os cōprehenderemus. Et tūc in illos nauigare in gyrum (ne euadere possent) circūdare occēpimus / quibus sua quoq̄ vice nitentibus vidimus illos (aura temperata manēte) remis suis oībus sursum erectis quasi firmos ac resistentes se significare velle / quā rē sic idcirco illos efficere putauimus vt inde nos in admirationem cōuerterēt. Cū ȳo sibi nos cominus appropinq̄re cognouissent remis suis ī aquā cōuersis terrā ȳsus remigare īceper̄. Atq̄ nobiscū carbasū vnā xlv. doliorū volatū celerrimū educebamus / quę tūc tali nauigio delata est vt subito ventū sup̄ eos obtineret. Cumq̄ irruendi in illos aduenisset cōmodis ipsi sese apparatusq̄ suū in phaselo suo ordinate spargētes / se quoq̄ ad nauigandū accinxer̄. Itaq̄ cū eos prēterissemus / ip̄i fugere conati sūt. At nos

d iiii

## NAVIGATIO

nōnullis tunc expeditis phaselis/validis viris stipatis illos tunc cōprehendere putantes mox in eos incurrimus contra q̄s bis geminis fere horis / nobis nitentibus/nisi carbasus nostra quę cursu eos præterierat rursus super eos reuerfa fuisset/illos penitus amittebamus. Cum vero ipsi se eisdem nostris phaselis carbasoq̄ vndiq̄ constrictos esse perspicerent om̄s q̄ circit̄. xx. erāt & a terra duabus fere leucis distabāt/in mare saltu p̄silierunt. Quos nos cū phaselis nostris tota p̄sequentes die/nullos ex eis nisi tantumodo duos p̄hēdere potuimus alijs oīs bus in terram saluis abeuntibus. In lintre autē eorū quam deseruerant bis gemini iuuenes extabant nō de eorum gente geniti sed quos in tellure aliena rapuerāt/quorū singulis ex recenti vulnere virilia absciderant/quę res admirationē nō paruam nobis attulit. Hos autem cū in nostras suscepissemus nauiculas nutibus nobis insinuarunt quemadmodū illi eos ab ipsis manducandos abducerent/indicantes interim quod gēs hęc tā effera & crudelis/hūanarū carniū comestrix Cambali nūcuparet̄. Postea aut nos ipsam eorū lintrem nobiscum trahentes/& cū nauiculis nostris cursum eorū terrā versus arripientes parūper interim cōstitimus & naues n̄ras media tantū leuca a plaga illa distātes anchorauimus/quam cū populū plurimū oberrare vidissemus in illam cum ipsis nauiculis nostris subito properauis-

## SECVNDA

mus ductis nobiscum duobus illis quos in lintre a nobis inuasa cōprehenderamus. Quā primū autē terram ipsam pede contigimus om̄s trepidi & se ipsos abdituri in vicinas nemorū latebras diffugerunt. Tum vero vno ex illis quos prēhenderamus abire permissio & plurimis illi amicicię signis necnō nolis cymbalis / ac speculis plerisq; datis/diximus ei ne ppter nos cēteri qui aufugerant expauescerent/qm̄ eorū amicos esse plurimum cupiebamus/qui abiens iussa nostra solemter impleuit gente illa tota .cccc. videlicet fere viris/cum fæminis multis a filiis secū ad nos eductis. Qui inermes ad nos vbi cum nauiculis nostris eramus omnes venerunt/& cū quibus tūc amiciciam bonā firmauimus restituto quoq; eis alio quem captiuū tenebamus & pariter eorum lintrem quam inuaseramus p nauuū nostrarū socios apud quos erat eis restitui mandauimus. Porro hęc eorū linter quę ex solo arboris trunco cauata & multū subtiliter effecta fuerat/lōga. xxvi. passibus et lata duobus brachijs erat. Hāc cū a nobis recuperassent & tuto ī loco fluminis reposuissent om̄s a nobis repente fugerunt nec nobiscum amplius conuersari voluerunt. Quo tam barbaro facto comperto illos malæ fidei malęq; conditionis existere cognouimus. Apud eos aurę dūtaxat pauculū quod ex auribus gestabant vidimus. Itaq; plaga illa relicta & secundum eam, nauigatis/

## NAVIGATIO

**Lxxx.** circiter leucis stationē quandā nauiculis tutā  
reperimus/in quam introeūtes tantas inibi cōperi-  
mus gētes vt id mirabile foret. Cū qbus facta ami-  
cicia iuimus deinde cū eis ad plures eorū pagos vbi  
mīstū secure mīstūq; honeste ab eis suscepti fuimus  
& ab eis iterim. ccccc. vniones vnica nola emimus  
cum auro modico quod eis ex gratia cōtulimus. In  
hac terra vinū ex fructibus semētibusq; expressum  
vt ciceram ceruissiamue albā et rubentē bibūt/me-  
lius aut ex myrre pomis valde bonis cōfectū erat  
ex quibus cū multis q̄ bonis alijs fructibus gustui  
sapidis & corpori salubribus habūdanter comedis-  
mus/ p̄pterea q̄ tēpestiue illuc adueneramus. Hęc  
eadē insula eorū rebus suppellectiliue q̄ multū ha-  
bundans est/ gensq; ipsa bonę cōuersationis & ma-  
loris pacificētię est q̄ vsq; alibi repererimus aliā. In  
hoc portu. xvij. diebus cū ingenti placito perstitis-  
mus veniētibus quotidie ad nos populis mīstis nos  
effigiemq; nostrā & albedinem necnō vestimenta  
armaq; nostra & nauū nostrarū magnitudinē ad-  
mirantibus. Hī etiā nobis gentem quandā eis infe-  
stā occidentē ysus existere retulerunt/quę gens  
infinitā habebant vnionum quantitatē/q̄t q̄ quos  
ipsi habebant vniones eisdē inimicis suis in bellige-  
rationibus aduersus eos habitis abstulerāt nos q̄q;  
& quēadmodū illos piscarent & quēadmodū na-  
scerent edocentes/ quorū dicta vera p̄fecto esse co-

## SECVNDA

gnouimus put et maiestas v̄ra posthęc amplius intelligere poterit. Relicto aut̄ portu illo & secundū plagā eandē in quā cōtinue gentes affluere p̄spiciamus cursu nostro p̄ducto portū quendā aliū resficiēde vnius nauiculę nostrę gr̄a/in quo gētē multā esse cōperimus/cū quibus nec vī nec amicitia cōuerlationē obtinere valuimus/illis si qñq; in terrā cū nauiculis nostris descenderemus se cōtra aspere defendentibns/& si qñq; nos sustinere nō valerēt in siluas aufugientibus/& nos nequaq; expectantibus/quorū tantā barbariē nos cognoscentes ab eis exhinc discessimus. Tuncq; inter nauigandū insulā quandā in mari leucis a terra. xv. distantē vidimus quam si in ea populus quispiā esset inuisere cōcordauimus. In illam igit̄ accelerantes quandā inibi inuenimus gentem/quę oīm. bestialissima simplicissimaq; omniū quoq; gratiosissima benignissimaq; erat/cuiusquidē gentis ritus et mores eiusmodi sūt.

De eiusdem gentis ritu & moribus.

### II VVLTV AC GESTV CORPO

**H**is brutales admodum extant/ singuliq; maxillas herba quadā viridi itrorsum repletas habebāt/quā pecudum instar vsq; ruminabant/ita vt vix quicq; eloqui possent/quorū quoq; singuli ex collo pusillas ficcatasq; cucurbitas duas/alteram earum herba ipsa quam in ore tenebāt/alteram vero ex ipsis farina quadam albida gipso

## NAVIGATIO

mutuo simili plenam gerebant/habito bacillo quodam quē in ore suo madefactū masticatumq; sepius in cucurbitam farrina repletā mittebant/& deinde cum eo de eadem farrina extrahebāt/ quam sibi post hęc in ore vtrumq; ponebant/herbam ipsam quā in ore gestabant eadē farrina respergitādo/ & hoc frequentissime paulatimq; efficiebāt/quā rem nos admirati/illius causam secretūq; aut cur ita facerēt satis nequiuius cōprēhēdere. Heccine gens (vt experimento didicimus) ad nos adeo familiariter aduenit/ac si nobiscū sepius antea negociati fuissent & longēquā amiciciā habuissent. Nobis autē per plagam ipsam cū eis ambulātib; colloquētib; & interim recentem aquam bibere deliderantib;/ipsi per signa se talibus aquis penitus carere insinuantes vltro de herba farinaq; quam in ore gestabant offerebant/propter quod regionem eandem aquis deficientem q; q; vt sitim subleuarent suam herbam farinam talem in ore gestarēt intelleximus. Vnde factum est vt nobis ita merantibus & circū plagam eandem vna die cum merdia illos cōcomitantibus viuīdam aquam nusq; inuenerimus/cognouerimusq; q; ea quam bibebant aqua ex rore noctu super certis folijs auriculis asini similibus decidēte collecta erat. Quęquidem folia eiusmodi rore nocturno tpe se implebāt ex q; rore (qui optius ē) idē ppl's bibebat/sed tñ talibus folijs

## SECVNDA

plera q̃ eorū loca deficiebant. Heccine gens victus  
alibus quę in terra solida sunt penitus carent quin-  
ymmo ex piscibus quos in mari piscantur viuunt.  
Etenim apud eos qui magni piscatores existunt pi-  
scium ingens habundat copia/ex quibus ipsi pluri-  
mos turtures ac q̃ bonos pisces alios plures/vltro  
nobis obtulerunt. Eorum vxores herba quā in ore  
viri ipsi gerebant nusq̃ vtebantur. Verum singule  
cucurbitam vnā aqua impletam ex qua biberent  
habebant. Nullos domorum pagos nulla ve tugu-  
ria gens hęc habent pręterq̃ folia grandia quedam  
sub quibus a solis feruore sed nō ab ymbribus se p-  
tegunt/propter quod autumabile est q̃ parum in  
terra illa pluitet. Cum autē ad piscandū mare adie-  
runt folium vnū adeo grande secum quisq̃ piscatu-  
rus effert vt illo in terram defixo & ad solis meas-  
tum versato sub illius vmbra aduersus estū totum  
se abscondat. Haccine in insula q̃ multa variorū ge-  
nerum animalia sunt quę omnia aquam lutulentā  
bibūt. Videntes autē q̃ in ea cōmodi nihil nanciscē-  
remur/nos relicta illa aliā quamdā insulā tenuimus  
in quam nos ingredientiē & recentem vnde bibe-  
remus aquā inuestigantes/putantes interim ipsam  
eandem terrā a nullis esse habitatam/propterea q̃  
in ea neminē inter adueniendum, pspexeramus/dū  
per arenā deambularemus vestigia pedum q̃ ma-  
gna nōnulla vidimus/ex quibus cēsuimus q̃ si eis

## NAVIGATIO

dem pedibus reliqua membra respondebant/ homines in eadem terra grandissimi habitabant. Nobis autem ita per arenam deambulantibus/viam vnā in terram ducentē cōperimus secundum quam. ix. de nobis eūtes insulam ipsam inuisere parauimus ob id q̄ non t̄spaciosam illam nec t̄multas in ea habitare gentes existimauimus. Pererrata igitur secundū eandem viam vna fere leuca quinq; in conualle quadam (quę populatę apparebant) vidimus casas/in quas introeuntes quinq; in illis reperimus mulieres/vetulas videli cet duas & iuuenulas tres quęquidem om̄s sic statura p̄ceres erāt vt inde valde miraremur. Hę autē protinus vt nos intuite sunt adeo stupefactę permanserūt vt aufugiendi animo penitus deficerent. Tumq; vetulę ipsę lingua eorū nobiscum blandiuscule loquentes/et sese omnes in casam vnā recipiētes p̄multa nobis de suis victualibus obtulerunt Eedem v̄o om̄s longissimo viro statura grandiores erant & quidē eque grandes vt Franciscus de Albicio/sed meliore t̄p̄ nos sumus p̄portiōe compactę. Quibus ita compertis posthec vna cōuenimus/vt iuueniculis ipsis per vim arreptis eas in Castiliam quasi rē admirādā abduceremus/in qua deliberatiōe nobis existentibus ecce. xxxvi. vel circiter viri m̄lto t̄p̄ femine ipsę altiores/& adeo egregie cōpositi/vt illos inspicere delectabile foret calā ipsam introire occeperūt/ p̄pter quos tanta

## SECVNDA

tūc affecti fuimus turbatiōe vt satius apud nauicul-  
las n̄ras q̄ cū tali gente esse duxissemus. Hīj & em̄  
ingentes arcus & sagittas necnon & fudes p̄ticas-  
ue magnas instar clauarū ferebant/qui ingressi lo-  
quebantur quoq̄ inter se mutuo ac si nos compre-  
hendere vellēt. Quo tali periculo percepto diuersa  
etiā iter nos tūc fecimus cōsilia. Vnis vt illos ī ipsa  
eadē casa inuaderemus/alij s̄o nequaq̄ sed foris  
potius & ī platea/& alij vt nusq̄ aduersus eos pu-  
gnam quēreremus donec quid agere vellēt itellige-  
remus asseuerantibus. Inter quē cōsilia casam illā si-  
mulate exiuius & ad naues n̄ras remcare ocepī-  
mus ipsiq̄ (q̄tus est lapidis iactus) mutuo sp̄ loquē-  
tes nos infecuti sunt/haud minore q̄ nos vt autus  
**mo** trepidantes formidine/cū nobis mirantibus ipi  
quoq̄ eminus manerent/& nisi nobis ambulanti-  
bus nō ambulant. Cū s̄o ad naues nostras perti-  
gissemus & in illas ex ordine itroiremus/mox oēs  
in mare profilierunt/& q̄ multas post nos sagittas  
suas iaculati sunt/sed tūc eos p̄paucū metuebamus  
Nam tum machinarū n̄rarū duas in eos (potius vt  
terrorēt q̄ vt itēfirēt) emisimus/quarūquidē tumul-  
tu p̄cepto/oēs cōfestim in mōtē vnū p̄pīquū fuga  
abierūt/et ita ab eis erepti fuimus discessimusq̄ p̄it  
Hīj oēs nudi vt de poribus hītū ē eunt. Appellauī-  
musq̄ īsulā illā/gigātū (ob p̄ceritatē eorū) īsulā. No-  
bis at̄vltius et a tra paulo distātius trāremigātibus

## NAVIGATIO

sepius interdum cum eis pugnasse nobis accidit ob id q̃ quicq̃ a tellure sua sibi tolli nequaquā permittere vellent. Et vtiq̃ quidē repet unde Castillie p̃positum iam nobis in mentem subierat/ob id potissimum q̃ vno iam fere anno in mari perstiteramus nec nisi tenuem alimentorū necessariorūq̃ aliorū munitiōē retinebamus. Quē & quidē adhuc ex vehementibus/quos pertuleramus solis caloribus iā cōtaminata inquinataq̃ erāt/cū ab exitu nostro a Campiuiroidis insulis vsq̃ tunc cōtinue per torridam nauigauissemus zonam/& transuerſim per lineam æquinoctialem bis/vt p̃habitu est. In qua quidem voluntate nobis perseuerantibus/nos a laboribus subleuare nostris sanctifico cōplacuit spiritui. Nempe receptū quempiam pro rursus nouandis nauali bus nostris nobis quærentibus ad gentem quamdā peruenimus quē nos cū maxia susceperit amicitia/& qualquidem vnionū perlarū ve orientalium comperimus in numero maximo tenere/ p̃pter quod. xlvij. diebus ibi perstitimus &. C. xix. vnionū marchas/precio ( vt estimabamus ). xl. non superante ducatos/ab eis cōparauimus. Nā nolas/specularia/cristallinosq̃ nōnullos/nec nō leuissima electri folia quēdā/eis tantū p̃pterea tradidimus. Nempe quotquot quilibet eorum obtineret vniones eos p̃ sola nola donabat. Didicimus quoq̃ interdum ab eis quomodo & vbi illos piscarentur/

## SECUNDA

qui & quidem ostreolas in quibus nascunt nobis plures largiti sunt. Et pariter nonnullas mercati sumus / vbi in quibusdam .C. & xxx. vniones in quibusdam vero nō totidem reperiēbant. Noueritq; maiestas vestra / q; nisi permaturi sint & a conchilijs in quibus gignunt per sese excidant omnine pfecti nō sunt. Quinymmo in breui vt sēpius ipse expertus sum) emarcescūt / & i nihil redacti sūt. Cū vero maturi fuerint in ostrea ipla inter carnes (pręter id q; ipsis carnibus hęreant) se separant / & huiusmodi optimi sūt. Efluxis igit. xlvij. diebus nec non gente illa quam nobis plurimū amicā effeceramus relicta hinc ab eis excessimus ob plurimarum rerum nostrarū indigentiam / venimusq; ad Antiglię insulam quā paucis nuper ab annis Cristophorus Columbus discooperuit in qua reculas nostras ac naualia reficiendo mensibus duobus & diebus totidē permansimus / plures interdum Christicolarum inibi conuersantiū contumelias perpetiēdo quas prolixus ne nimiū fiam hic omitto. Eandē vō insulam. xxij. iulij deferentes / percursa vnius mensis cum medio nauigatione Caliciū tandem portū viij. mensis Septembris subiimus / vbi cum honore pfectuq; suscepti fuimus. Et sic per dei placitum finem nostra cepit secunda nauigatio.

### De tertio facta nauigatione

e

## NAVIGATIO

IN SIBILLIA EXISTENTE/ ET

**m**a poenis atq; laboribus quos iter p̄memo-  
ratas pertulerā nauigationes paulisper re-  
quiescente/ desiderāteq; posthęc in perlarū terram  
remeare: fortuna fatigationū mearū nequaq; adhuc  
satura serenissimo illi dño Manueli Portugallię Re-  
gi misit in cor (nescio vt quid) vt destinato nuncio  
litteras regales suas ad me trāsmitteret quibus plus-  
rimū rogabat vt ad eū apud Lisbonā celerius me  
transferrē/ ipse etem mirabilia mihi plurima faceret:  
Super qua re nondū tunc deliberaui quinymmo ei  
per eundemet nunciū/ me minus bene dispositū  
& tunc male habere significavi. Verū si quandoq;  
recōualescerē & maiestati eius regię meum forsan  
cōplaceret obsequiū omnia quęcuncq; vellet ex ani-  
mo perficerē. Qui rex percipiēs q̄ me ad se tūc tra-  
ducere nequirē Iulianū Bartholomeū locundū qui  
tunc in Lisbona erat rursus ad me destinauit cum  
cōmissione vt oībus modis me ad eundē regē secū  
perduceret: ppter cuius Iuliani aduentū et preces/  
coactus tūc fui ad regē ipsum meare/ quod (qui me  
nouerant omnes) malū esse iudicarunt. Et ita a Cas-  
tilia vbi honor mihi non modicus exhibitus extis-  
terat/ ac rex ipse Castilię. existimationē de me bo-  
nam conceperat profectus sum/ & quod deterius  
fuit hospite insalutato/ ac mox coram ipso rege do-  
mino Manuele meipsum obtuli: qui rex de aduen-

## TERTIA

tu meo non paruam visus est concepiſſe ſceticiam plurimū me interdum rogitans / vt vna cum tribus eius conſeruantē nauibus / quę ad exeundum & ad nouarū terrarum inquisitionē preparatę erant proficiſci vellem. Et ita( quia regum preces præcepta ſunt) ad eius votum conſenſi.

### Tempus profectionis tertię

IGITVR AB HOC LISBONE PORTV eum tribus conſeruantē nauibus die Maij decima. M. cccc. & primo abeuntes / curſum noſtrum verſus magnę Canarię inſulas arripuimus: ſecundū quas & ad earū proſpectū inſtanter enauigātes idem nauigiū noſtrū collateraliter ſecundū Affricam occidentē ꝑſus ſecuti fuimus. Vbi piſciū quorundam( quos Parghi nuncupant) multitudinē maximam in æquore prendidimus / tribus inibi diebus moram facientes. Exinde autem ad partem illam Ethopię / quę Beſilicca dicit̃ deuenimus / quę quidē ſub torrida zona poſita eſt / & ſuper quam. xiiij. gradibus ſe Septemtrionalis erigit polus in climate primo vbi diebus. xi. nobis de lignis & aqua prouiſionē parantes reſtitimus / ꝑpter id qđ Auſtrū ꝑ Athlanticū pelagus nauigandī mihi ineſſet affectus. Itaꝑ portū Ethiopię illū poſt hæc relinquer

e ij

## NAVIGATIO

tes tunc per Lebecciū ventū in tantū nauigauimus  
v. lx. et. vii. infra dies insule cuidam applicuerimus  
quę insula DCC. a portu eodem leucis ad Lebeccij  
pariē distaret. In quibusquidē diebus / peius ppef-  
si tēpus fuimus q̄ vnq̄ in mari quisc̄q̄ antea pertu-  
lerit / pp̄ ventorū nimborūue impetus / qui q̄plur-  
rima nobis intulere grauamina ex eo q̄ nauigium  
nostrū lineę p̄sertim equinoctiali cōtinue iunctū  
fuit. Inibiq̄ in mense lunio hyems extat ac dies no-  
ctibus equales sunt / atq̄ ipsę vmbre nrę continue  
versus meridiem erant. Tandem vero omnitonan-  
ti placuit nouā vnam nobis ostendere plagā. xvij.  
scilicet Augusti / iuxta quam (leuca sepositi ab eadē  
cum media) restitimus / et postea assumptis cymbis  
nōnullis in ipsā visuri si inhabitata esset p̄fecti fui-  
mus: quam & quidē incolas plurimos habitare re-  
perimus qui bestiis prauiores erāt / quēadmodum  
maiestas regia vestra posthęc intelliget. In hoc yō  
introitus nostri principio gentem non percepinus  
aliquā / q̄uis oram ipsam per signa plurima ( quę vi-  
dimus) populo multo repletā esse intellexerimus.  
De qua quidē ora pro ipso serenissimo Castilię re-  
ge possessorū cepimus / iuuenimusq̄ illā multum  
amoenā / ac veridē esse & apparentię bonę. Est au-  
tē extra lineam equinoctialem Austrum versus .v.  
gradibus / et ita eadem die ad naues nostras repeda-  
uimus. Quia vero lignorum & aque penuriam pa-

## TER TIA

tiebamur / concordauimus iterū in terrā altera die  
reuerſi ut nobis de neceſſarijs prouideremus: in qua  
quidem nobis extantibus / v idimus ſtantes in vnus  
us montis cacumine gentes quę deorſum deſcēde-  
re non auderent / erantq; nudi omnes necnō conſi-  
milis effigiei colorisq; ut de ſupioribus habitū eſt.  
Nobis aut ſatagentibus ut nobiſcū conuerſatū ac-  
cederēt / nō ſic ſecuros eos efficere valuimus ut de  
nobis adhuc nō diffiderent. Quorū obſtinatiōe p-  
teruiatq; cognita / ad naues ſub noctē remeauimus  
relictis in terra (videntibus illis) nolis ſpeculisq; nō  
nullis ac rebus alijs. Cūq; nos in mari eminus eſſe  
proſpicerēt / om̄s de ipſo mōte (ppter reculas quas  
reliqueramus) deſcenderunt plurima inter ſe admi-  
rationis ſigna facientes. Nec tunc de aliquo niſi de  
aqua nobis prouidimus. Craſtino autē effecto mane  
vidimus e nauibus gentem eandem numero q̄ an-  
tea maiorē paſſim per terram ignes fumosq; faciē-  
tem. Vnde nos exiſtimantes q̄ nos per hoc ad ſe in-  
uitarent iuimus ad eos in terram / vbi tunc populū  
plurimū adueniſſe cōſpeximus: qui tamen a nobis  
longe ſeipſos tenebant / ſigna facientes interim nō  
nulla ut cum eis interius in inſulā vaderemus. Pro-  
pter quod factū eſt ut ex Chriſticolis nr̄is duo p-  
tinus ad hoc parati periculo ad tales eundi ſemet-  
ipſos exponerent / ut quales gentes eedem forent /  
aut ſi quas diuitias ſpeciesue aromaticas vllas habe-

¶ iij

## NAVIGATIO

rent/ipsi cognoscerent: quapropter in tantū nauū  
pr̄torem rogitaerunt/ vt eis quod postulabāt an  
nueret. Tum vero illi ad hoc sese accingētes necnō  
plerasq; de rebus suis minutis secū fumentes/ vt in  
de a gentibus eisdem mercarenī alias/ abierūt a no  
bis data conditione vt ad nos post quinq; dies ad  
summū remeare solliciti essēt / nos etenim illos tam  
diu expectaremus. Et ita tūc iter suum in terrā arri  
puerunt/ atq; nos ad naues nostras regressum cē  
pimus vbi expectando eos diebus . viij. perstiti  
mus. In quibus diebus gens per multa noua dictim  
fere ad plagā ipsam adueniebat / sed nusq; nobiscū  
colloqui voluerūt Septima igit aduentāte die nos  
in terram ip̄am iterū tendentes/ gentē illam mulie  
res suas omnes secū adduxisse reperimus. Quā vō  
primū illuc peruenimus/ mox ex eisdem vxoribus  
suis ad colloquendū nobiscū q̄plures miserunt/ fē  
minis tamen eisdem non satis de nobis confidenti  
bus: quod quidem nos attendentes cōcordauimus  
vt iuuenem vnum e nobis (qui validus agiliscq; nis  
mum esset) ad eas quoq; trāsmitteremus/ & tunc  
vt minus fēminę eēdem metuerēt in nauiculas no  
stras introiuimus. Quo egresso iuvene cū seipsum  
inter illas immiscuisset/ ac illę omnes circumstantes  
contingerent palparentq; eum/ & propter eum nō  
parum admirarentur: ecce interea de monte fēmi  
na vna vallum magnū manu gestans aduenit quæ

## TERTIA

postq̃ vbi iuuenis ipse erat appropiauit / tali eū val-  
 li sui ictu a tergo percussit vt subito mortuus in ter-  
 ram excideret: quē confestim mulieres alię corripis-  
 entes / illū in montē ■ pedibus p̃traxerūt / viriq̃ ipsi  
 qui in monte erāt ad littus cum arcubus & sagittis  
 adueniētes ec sagittas suas ī nos cōñciētes tali gētē  
 nostrā affēcerūt stupore (ob id q̃ nauiculę illę ī qui-  
 bus erāt harenā nauigando radebāt / nec celerit ~~an~~  
 fugere tunc poterant) vt sumendorū armorum suo-  
 rum memoriam nemo tunc haberet. Et ita q̃ plus  
 res cōtra nos sagittas suas eiaculabantur. Tum ve-  
 ro in eos quatuor machinarum nostrarum fulmina  
 licet neminem attingētia emisimus / quo audito to-  
 nitruo omnes rursus in montē fugerunt / vbi mu-  
 lieres ipsę erāt / quę iuuenē nostrum quem trucidas-  
 uerant (nobis videntibus) in frustra secabant / nec nō  
 frustra ipsa nobis ostentantes / ad ingentem quem  
 succenderant ignem torrebant / & deinde posthęc  
 manducabūt. Viri quoq̃ ipsi signa nobis similiter  
 facientes / geminos Chrīsticolas nostros alios se-  
 pariformiter peremisse manducasseq̃ insinuabant  
 quibus qui & vtiq̃ vera loquebantur / in hoc ipso  
 credidimus. Cuius nos impropert̃ vehementius pi-  
 guit / cum inmanitatem quam in mortuum exerce-  
 bant / oculis intueremur ipsi proprijs . Quamob-  
 rem plures q̃ quadraginta de nobis in animo sta-  
 biliueramus vt omēs pariter terram ipsam impetu

## NAVIGATIO

petentes tam immane factū tamq̃ bestialem fero/  
ciā vindicatū vaderemus. Sed hoc ipsum nobis na  
uiprētor nō permisit/& ita tam magnā ac tam gra  
uem iniuriā passi cū maliuolo animo & grandi op/  
probrio nostro(efficiēte hoc nauiprēceptore nō)  
impunitis illis abcessimus. Postq̃ aut̃ terram illam  
reliquimus/mox iter Leuantē et Seroccū ventum  
(secūdū quos se cōtinet terra)nauigare occēpimus  
plurimos ambitus plurimosq̃ gyros interdum se/  
ctantes /quibus durātibus gentes nō vidimus quē  
nobiscū praticare aut ad nos appropinquare vo/  
luerint. In tantū ꝑo nauigauimus vt tellurem vnā  
nouā( quē secūdū Lebecciū se porrigeret) inuene  
rimus. In qua cū campū vnū circuiuissemus(cui san  
cti Vincentij campo nomen indidimus) secundum  
Lebecciū ventū posthēc nauigare occēpimus. Di/  
statq̃ idem sancti Vincentij campus a priore terra  
illa vbi Cristicolę nostri extiteēt interempti.cl. leu  
cis ad partem Leuātis. Qui et quidē canipus .viij.  
gradibus extra lineam equinoctialem versus au/  
strum est. Cum igit̃ ita vagantes iremus/quadā die  
copiosam gentiū multitudinem/nos nauiumq̃ no/  
strarum vastitatē mirantiū in terra vnā alia esse cō  
speximus:apud quos tuto in loco mox restitimus  
& deinde in terram ipsum ad eos ex nauiculis no/  
stris descendimus/quos quidem mitioris esse con/  
ditionis q̃ priores reperimus. Nam & si in edomā

## TERTIA

dis illis diu elaborauimus/amicos tamē nostros ~~cas~~  
tandem effecimus:cum quibus negociando practi-  
candoq; varie.v.mansimus diebus vbi ~~cauas~~ listu-  
las virides plurimū grossas/& etiam nōnullas in ar-  
borū cacuminibus siccas inuenimus. Concordauim-  
us aut vt ex eadem gente duos qui nos eorū lin-  
guam edocerent inde traduceremus. Quamobrem  
tres ex eis vt in Portugalliā venirent nos vitro co-  
mitati sunt.Et qm̄ me omnia prosequi ac describere  
re piget/dignetur vestra nosse maiestas q; nos por-  
tum illum linquentes/per Lebecciū ventū/& in vi-  
su terrę semper transcurrimus plures continue faci-  
endo scalas pluresq; ambitus/ac interdū cū multis  
populis loquendo:donec tandem versus Austrum  
extra Capicorni tropicū fuimus.Vbi sup̄ horizon-  
ta illū meridionalis polus.xxxij. sese extollebat gra-  
dibus/atq; minorem iam perdideramus vrsam/ip̄a  
q; maior vrsa multū infima videbat̄ fere in fine Ho-  
rizontis se ostentans:& tūc per stellas alterius me-  
ridionalis poli nosmetipsos dirigebamur /quę mul-  
to plures m̄sto q; maiores ac lucidiores q; nostri po-  
li stelle existūt:propter quod pluri marū illarū figu-  
ras confinxi /& p̄sertim earū quę prioris ac maio-  
ris magnitudinis erant/vna cū declinatione diame-  
trorū quas circa polum Austri efficiunt/& vna cū  
denotatione earūdem diametrorū & semidiamet-  
rorū earum prout in meis quatuor dietis siue naui

f

## NAVIGATIO

gationibus inspicere facile poterit. Hoc cene ꝑo nauis  
gido nostro a campo sancti Augustini incepto. Dcc.  
percurrimus leucas videlicet ꝑsus ponentem. c. / et  
versus Lebecciū. Dc. quasquidē dū peragraremus  
si quis quę vidimus enumerare vellet non totidem  
et papireę cartę sufficerent. Nec quidem interdum  
magni cōmodi res inuenimus demptis infinitis cas  
sę arboribus: et pariter plurimis quę laminas cer  
as producant / cū quibus & miranda alia per mul  
ta vidimus quę fastidiosa recēsitū forent. Et in hac  
quidem peragratiōe. x. fere mensibus extitimus. In  
qua cognito q̄ mineralia nulla reperiēbamus / con  
uenimus vna vt ab inde surgētes alio ꝑ mare euas  
garemur. Quo inito iter nos consilio / mox edictū  
fuit ac in omnem cetū nostrū vulgatū vt quicquid  
in tali nauigatione ꝑcipiendū censerem id ipsum  
itegriter fieret. Propter quod cōfestim edixi māda  
ricꝑ vbiqꝑ vt de lignis & aqua ꝑ sex mensibus mu  
nitionē omnes sibi pararent. Nam per nauīū ma  
gistros nos cum nauibus nostris adhuc tantūdem  
nauigare posse indicatū est) quaquidem (quam edi  
xeram) facta prouisione / nos oram illā linguētes &  
inde nauigauonē nostram per Seroccū ventū initi  
antes Februarij. xij. videlicet / cum sol equinoctio  
iam appropinquaret et ad hoc Septentrionis hemi  
speriū nostrū ꝑgeret in tantū peruagati fuimus vt  
meridianū polū super horizonta illū. ljj. gradibus

## TERTIA

sublimatū inuenerimus. Ita vt nec minoris vrsę nec maioris stellę ammodo inspicere valerent. Nam tūc a portu illo a quo per Serocum abieramus .cccc. leucis longe iam facti eramus. iij. videlicet Aprilis: Qua die tempestas ac procella in mari tam vehemens exorta est/vt vela nostra omnia colligere & cum solo nudoq; malo remigare cōpelleremur per flante vehementissime Lebeccio ac mari intumescente & aere turbulentissimo extante. Propter quē turbinis violentissimū impetum nostrates omnes non modico affectu fuerunt stupore. Noctes quoq; tunc inibi q̄maxime erant. Etenim Aprilis. vii. sole circa arietis finem extante ipsę eędem noctes horarum. xv. esse repertę sunt: hyems q; etiā tūc inibi erat vt vestra satis perpēdere potest maiestas. Nobis autem sub hac nauigātibus turbulentia/terram vnā Aprilis. ij. vidimus penes quam. xx. circiter leucas nauigantes appropiauius. Verū illam omnimodo brutalem & extraneam esse comperimus in qua quidem nec portū quēpiam nec gentes aliquas fore cōspeximus: ob id (vt arbitror) q; tā asperum in ea frigus algeret vt tam acerbum vix quisquā perpeti posset. Porro in tanto periculo in tantatq; tempestatis importunitate nosmet tum repertimus/vt vix alteri alteros prę grandi turbine nos videremus. Quamobrem deum cum nauium pręstare pariter concordauimus vt conuauitis nostris

I ij

## NAVIGATIO

omnibus/terrām illā linquendi/sec̃ ab ea elongan  
di / & in Portugalliam remeandi ligna faceremus  
Quod cōsiliū sanū quidem etvtile fuit/cum si inibi  
nocte solū adhuc illa perstitissemus disperditi om̃s  
eramus. Nempe cū hinc abijssemus tā grandis die  
sequenti tempestas in mari excitata est/vt penitus  
obruī perditē metueremus. Propter quod plurima  
peregrinationū vota necnon alias cōplures cerimo  
nias (prout nautis mos esse solet) tunc fecimus. Sub  
quo tempestatis ifortunio. v. nauigauimus diebus  
demissis omnino velis. In quibusquidem. v. diebus  
cc. et. l. in mari penetrauimus leucas/lineę interdum  
ęquinoctiali necnō mari & aurgē temperationi sem̃  
per appropinquando/per quod nos ꝑ premissis eri  
pere periculis altissimo deo placuit. Eratq; huiusce  
modi nostra navigatio ad transmontanū ventū &  
grēcū/ob id qđ ad Ethiopię latus pertingere cupie  
bamus: a quo ꝑ maris Athlantici fauces eundo M.  
ccc. distabamus leucis. Ad illā aut per summitonan  
ris gratiam Maij bisquina pertigimus die. Vbi in  
plaga vna ad latus Austrī (quę Serraliona dicitur)  
xv. diebus nos ipsos refrigerando fuimus. Et. post  
hec cursum nostrum versus insulas Lyazori dictas  
arripuimus/quęquidē insulę a Serraliona ip̃a. Dcc.  
& l. leucis distabant/ ad quas sub Iulij finem per  
uenimus/ & pariter. xv. inibi nos reficiendo persti  
mus diebus. Post quos inde exiimus & ad Lis

## OVARTA

bonę nostrę recursum nos accinximus / a qua ad occidentis partem. ccc. sepositi leucis eramus / et cuius tandem deinde portum. M.D. ij. cū prospera saluatione ex cunctipotentis nutu rursus subiuius / cū duabus duntaxat nauibus: ob id q̃ tertiā in Serralliona (qm̃ amplius nauigare nō posset) igni combusseramus. In hac autē nostra tertio cursa nauigatione. xvi. circiter menses permāsimus / e quibus. xi. absq̃ transmontanę stellę necnon & maioris vr̃ę minorisue aspectu nauigauimus / quo tempore nos metipsos per aliam meridionalis poli stellam regebamus. Quę superius commemorata sunt / in eadem nostra tertio facta nauigatione relatu magis digna conspexi.

### De quartę nauigationis cursu

#### ELIQVVM AVTEM EST / VT

**r** quę in tertia nauigatione nostra prosperarim edisserā. Quia ṽo iā prę longa narratione fatisco / et quoq̃ hęc eadem nostra nauigatione ad speratum ■ nobis finē minime producta est / ob aduersitatem infortuniūue quoddam quod in maris Athlantici nobis accidit sinu: idcirco breuior siam. Igitur ex Lisbonę portu cum sex cōseruantię nauibus exiuius cū proposito insulam vnā versus horizontem positā inuisendi / quę Melcha di  
f iij

## NAVIGATIO

citur & diuitiarum multarū famosa necnō nauium  
omniū siue a Gangetico siue ab indico mari veni-  
entium receptus siue statio est/quemadmodū Cal-  
licia receptus siue hospitale omniū nauigantiū est  
qui ab oriente in occidentē & econuerso vagantur  
prout de hoc ipso per Calicutiē viā fama est. Que  
quidem insula Melcha plus ad occidentē Calicutia  
vō ipsa plus ad meridiem respicit:quod idcirco co-  
gnouimus quia ipsa in aspectu. xxxiij. graduū poli  
antarctici sita est. Decima ergo Maij die. M. D. iij.  
nobis vnde supra egredientibus cursum nostrū ad  
insulas virides nuncupatas primo dixerimus. Vbi  
rerum necessariarū munimina necnon et plura dis-  
uersorū modorū refrigeramina sumentes et. xij. in-  
terdum inibi diebus cessantes/per ventum Serocū  
post hęc euanigare occēpinus:cū nauidominus no-  
ster tamē pręsumptuosus capito susq; pręter neces-  
sitatem & omniū nostrum vnanimi-  
tatem (sed solū  
vt sese nostri & sex nauiū prępositū ostentaret) ius-  
sit vt in Serralionā Australem Ethiopię terram ten-  
deremus. Ad quā nobis accelerantibus & illā tan-  
dem in cōspectu habentibus tam immanis & acere-  
ba suborta tempestas est/ac ventus contrarius &  
fortunā aduersa inualuit/vt in ipsam (quam nostris  
ipsi videbamus oculis) per quatrimum applicare  
non valuerimus:quinymmo coacti fuerimus vt illa  
relieta ad priorem nauigationē nostram regredere

## QVARTA

mur. Quamquidem nos per Suduesium ( qui ventus est inter meridiem et Lebecciū ) reassumentes ecc. per illam maris artitudinē nauigauimus leucas Vnde factū est vt nobis extra lineam equinoctialem tribus pene gradibus iam tunc existentibus terra quedam (a qua. xij. distabamus leucis) apparuerit/ quę apparitio nō parua nos affecit admiratione Terra etem illa/ insula in medio mari multū alta & admirabilis erat/ quę leucis duabus longior & vna dilatior nō existebat: in qua quidem terra nūquā quisq; hominū aut fuerat aut habitauerat/ & nihilo minus nobis infelicissima fuit. In illa em p stolidū consiliū suum & regimen pfectus nauium noster nauem suā perdidit. Nempe illa a scopulo quodam elisa/ & inde ppter hoc in rimas diuisa sancti Laurentij nocte (quę Augusti. x. est) in mari penitus submersa extitit/ nihil inde saluo manente demptis tantūmodo nautis. Eratq; nauis eadem doliorū. ccc. in qua nostrę totius turbę totalis potentia erat. Cum aut omnes circa illam satageremus vt si forte ipam a periculo subtrahere valeremus: dedit mihi in mandatis idem nauium pfectus/ vt cū uauicula vna in receptū quempiam bonū vbi pupes nostras secure omnes recipere possemus apud insulam eandē inuentū pergerē/ nolens tamen ipse idem pfectus vt nauem meā (quę nouem nautis meis stipata/ & in nauis periclitantis adiutorio intēta foret) meū

f iij

## NAVIGATIO

tunc traducere/sed solū vt edixerat portū vnum in  
quisitū irem /et in illo nauem meā ipsam mihi resti  
tuerat. Qua iussione recepta/ego vt mādauerat(sū  
pta mecū nautarū meorū medietate)in insulā ip̄am  
(a qua.iiij.distabamus leucis)properans/ pulcherri  
mum inibi portū/vbi classem nostrā omnē tute sa  
tis suscipere possemus inueni. Quo cōperto. viij.  
ibidem diebus eundē nauīū pr̄fectum cū reliqua  
turba expectādo perstiti. Qui cū nō aduenirēt mo  
leste nō perum pertuli/atq; qui mecū erant sic ob  
stupefcebant vt nullo consolari modo vellent.No  
bis aut in hac existentibus angustia/ip̄a octaua die  
puppiū vnā per equor aduentare cōspeximus/cui  
vt nos percipere possent mox obuīam iuimus con  
fidentes sperātesq;vna quod ad meliorē portū quē  
piam nos secū ducerēt. Quibus dū appropinquas  
semus/& vicissim nos resalutassemus:retulerūt illi  
nobis/eiusdē pr̄fecti nr̄i nauē in mari penitus( dē  
ptis nautis)pditā extitisse: quē nūcia ( vt cōtēplari  
vr̄a pōt regia maiestas)me nō parua affecerūt mole  
stia/cū aLisbona(ad quā reueri habebā).M. longe  
existens leucis in longo remotoq; mari me esse fen  
tirem. Nihilominus tamen fortunē nosmet subiici  
entes vlterius p̄cessimus/reuerlic; ī primis fuimus  
ad memoratā insulā vbi nobis de lignis & aq̄ in cō  
seruatiē meę nauī puidimus:Erat ȳo eadē ilula pe  
nitius inhospitata inhabitataq;/m̄lta aqua viuīda &

## QVARTA

suam in illa scaturiente/cum infinitis arboribus innumerisq; volucibus marinis & terrestribus/que adeo simplices erant vt sese manu comprehendi intrepide permetterent. Propter quod tot tunc prendidimus vt nauiiculā vnā ex illis adimpleuerimus In ea autē nulla alia inuenimus animalia p̄terq; mures q; maximos/et lacertas bifurcā caudā habētes cum nōnullis serpentibus quos etiam in ea vidimus. Igitur parata nobis inibi prouisione sub veneto inter meridiem & Lebeciū ducēte perreximus ob id q; a rege mandatū acceperamus / vt qualicunq; non obstante periculo p̄cedentis nauigationis viam in sequeremur. Incepto ergo huiusmodi nauigio portum tandem vnum inuenimus quē omnium sanctorū Abbaciam nūcupauimus / ad quem (prosperam annuente nobis aurā altissimo) infra xviij. pertigimus dies. Distatq; idem portus .ccc. a p̄fata insula leucis / in quo quidē portu nec p̄fectum nostrū nec quemquā de turba alium reperimus / & si tamē in illo mensibus duobus & diebus quatuor expectauerimus / quibus efluxis viso q; illuc nemo veniret conseruantia nostra tunc & ego cōcordauimus / vt secūdū latus longius progredieremur. Percursis itaq; .cc. lx. leucis portui cuidam alij applicuimus in quo castellum vnū erigere proposuimus / quod & quidē p̄fecto fecimus relictis in illo .xxiij. Christicolis nobiscum existentibus / qui ex p̄fecti

## NAVIGATIO

ostri pupe perdita collecti fuerant. Porro in eodē  
portu præfatū cōstruendo castellū & bresilico pu-  
pes nostras onustas efficiendo. v. perstitimus men-  
sibus/ob id q̄ præ nautarū perpauccitate et plurimo-  
rū apparatū necessitate lōgius p̄gredi nō valeba-  
mus. Quibus superioribus ita peractis concordā-  
uimus post hæc in Portugalliam reuerti/quam rem  
per gr̄cū transmontanūq̄ ventum necesse nobis  
erat efficere. Relictis igitur in castello præfato Chri-  
sticolis. xxiiij. et cum illis. xij. machinis ac alijs pluri-  
bus armis vna cū prouisione pro sex mensibus suf-  
ficiente/necnō pacata nobiscum telluris illius gen-  
te( de qua hic minima fit mentio. licet infinitos ini-  
bi tūc viderimus/et cum illis practicauerimus. Nā  
xl. fere leucas cum. xxx. ex eis in insulam ipsam pe-  
netrauimus. Vbi interdum plurima perspeximus  
quę nunc subticescens libello meo. iij. nauigationū  
reseruo. Estq̄ eadem terra extra lineā æquinoctia-  
lem ad partem Austri. xvij. gradibus & extra Lis-  
bonę meridianū ad occidentis partem. xxxv. prout  
instrumenta nostra monstrabant) nōs nauigatio-  
nem nostrā per Normordensium(qui inter gr̄cum  
transmontanūq̄ ventus est) cū animi proposito ad  
ad hanc Lisbonę ciuitatē pficiscendi iniciantes/tan-  
dem post multos labores multaq̄ pericula in hunc  
eiusdē Lisbonę portū infra. lxxvij. dies. xxvij. lunij.  
M.D. iij. cum dei laude introiuimus. Vbi honoris

## QVARTA

ce multū & vltraq̃. sit credibile festiuꝝ suscepti fuis-  
mus: ob id q̃ ipsa tota ciuitas nos in mari disperdi-  
ros esse existimabat/ quēadmodū reliqui omnes de  
turba nostra p̃ p̃fecti n̄ri nauīū stultā p̃sumptio-  
nē extiterāt. Quo superbiā modo iustus omniū cē-  
sor deus cōpensat. Et ita nūc apud Lisbonā ipsam  
subsisto ignorans quid de me serenissimus ipse rex  
deinceps efficere cogitet/ q̃ a tantis laboribus meis  
iam exnunc requiescere plurimū peroptarem/ hūc  
nunciū maiestati vestrę plurimū quoq̃ interdū cō-  
mendans. Americus Vesputius in Lisbona

Pressit/ & ipsa eadē Christo monimēta fauēre  
Tempore venturo cetera multa premet.



Finitū. vñ. kl. Maij  
Anno supra sesqui  
millesimum. vñ.

Vrb̃ Deodate tuo dareſcens nomine p̃rſul  
Qua Vogēſ montis ſunt iuga preſſit opus



# INTRODUCTION TO COSMOGRAPHY

WITH CERTAIN NECESSARY PRINCIPLES  
OF GEOMETRY AND ASTRONOMY

TO WHICH ARE ADDED

THE FOUR VOYAGES OF  
AMERIGO VESPUCCI

A REPRESENTATION OF THE ENTIRE WORLD, BOTH IN  
THE SOLID AND PROJECTED ON THE PLANE,  
INCLUDING ALSO LANDS WHICH WERE UN-  
KNOWN TO PTOLEMY, AND HAVE BEEN  
RECENTLY DISCOVERED

DISTICH

Since God rules the stars and Cæsar the earth,  
Nor earth nor stars have aught greater than these.

TO MAXIMILIAN CÆSAR AUGUSTUS

PHILESIUS, NATIVE OF THE VOSGES

Since thy Majesty is sacred throughout the vast world,  
Maximilian Cæsar, in the farthest lands,  
Where the sun raises its golden head from the eastern  
waves

And seeks the straits known by Hercules' name,  
Where the midday glows under its burning rays,  
Where the Great Bear freezes the surface of the sea ;  
And since thou, mightiest of mighty kings, dost order  
That mild laws should prevail according to thy will ;  
Therefore to thee in a spirit of loyalty this world map  
has been dedicated

By him who has prepared it with wonderful skill.

THE END.

# PREFACE

TO HIS MAJESTY  
MAXIMILIAN CÆSAR AUGUSTUS  
MARTINUS ILACOMILUS WISHES  
GOOD FORTUNE

IF it is not only pleasant but also profitable in life to visit many lands and to see the most distant races (a fact that is made clear in Plato, Apollonius of Tyana, and many other philosophers, who went to the most remote regions for the purpose of exploration), who, I ask, most invincible Maximilian Cæsar, will deny that it is pleasant and profitable to learn from books the location of lands and cities and of foreign peoples,

Which Phœbus sees when he buries his rays beneath the waves,  
Which he sees as he comes from the farthest east,  
Which the cold northern stars distress,  
Which the south wind parches with its torrid heat,  
Baking again the burning sands?

(Boethius.)

Who, I repeat, will deny that it is pleasant and profitable to learn from books the manners and

## *Preface*

customs of all these peoples? Surely—to express my own opinion—just as it is worthy of praise to travel far, so it can not be foolish for one who knows the world, even from maps alone, to repeat again and again that passage of the *Odyssey* which Homer, the most learned of poets, wrote about Ulysses:

Tell me, O Muse, of the man who after the  
capture of Troy  
Saw the customs and the cities of many men.

Therefore, studying, to the best of my ability and with the aid of several persons, the books of Ptolemy from a Greek copy, and adding the relations of the four voyages of Amerigo Vespucci, I have prepared for the general use of scholars a map of the whole world—like an introduction, so to speak—both in the solid and projected on the plane. This work I have determined to dedicate to your most sacred Majesty, since you are the lord of the world, feeling certain that I shall accomplish my end and shall be safe from the intrigues of my enemies under your protecting shield, as though under that of Achilles, if I know that I have satisfied, to some extent at least, your Majesty's keen judgment in such matters. Farewell, most illustrious Cæsar.

At St. Dié, in the year 1507 after the birth of Our Saviour.

## ORDER OF TREATMENT

SINCE no one can obtain a thorough knowledge of Cosmography without some previous understanding of astronomy, nor even of astronomy itself without the principles of geometry, we shall in this brief outline say a few words:

(1) Of the elements of geometry that will be helpful to a better understanding of the material sphere;

(2) Of the meaning of *sphere*, *axis*, *poles*, etc.;

(3) Of the circles of the heavens;

(4) Of a certain theory, which we shall propose, of the sphere itself according to the system of degrees;

(5) Of the five celestial zones, and the application of these and of the degrees of the heavens to the earth;

(6) Of parallels;

(7) Of the climates<sup>1</sup> of the earth;

(8) Of winds, with a general diagram of these and other things;

(9) Of the divisions of the earth, of the various seas, of islands, and of the distances of

<sup>1</sup> The word *climate* is here used in its ancient sense of a zone of the earth's surface comprised between two specified parallels of latitude.

### *Order of Treatment*

places from one another. There will be added also a quadrant useful to the cosmographer.

Lastly, we shall add the four voyages of Amerigo Vespucci. Thus we shall describe the cosmography, both in the solid and projected on the plane.

## CHAPTER I

### OF THE PRINCIPLES OF GEOMETRY NECESSARY TO AN UNDERSTANDING OF THE SPHERE

SINCE in the following pages frequent mention will be made of the circle, the circumference, the center, the diameter, and other similar terms, we ought first of all briefly to discuss these terms one by one.

A circle is a plane figure bounded by a line drawn around, and in the middle there is a point, all straight lines drawn from which to the surrounding line are equal to one another.

A plane figure is a figure, no point of which rises above or falls below the lines that bound it.

The circumference is the line that so bounds the circle that all straight lines drawn from the center to the circumference are equal to one another. The circumference is also called in Latin *ambitus*, *circuitus*, *curvatura*, *circulus*, and in Greek *periphēreia*.

The center of a circle is a point so situated that all straight lines drawn from it to the line bounding the circle are equal to one another.

A semicircle is a plane figure bounded by the

## *Principles of Geometry*

diameter of the circle and one half of the circumference.

The diameter of a circle is any straight line passing through the center of the circle and extending in both directions to the circumference.

A straight line is the shortest distance between two points.

An angle is the mutual coming together of two lines. It is the portion of a figure increasing in width from the point of intersection.

A right angle is an angle formed by one line falling upon another line and making the two angles on either side equal to each other. If a right angle is bounded by straight lines, it is called plane; if bounded by curved lines, it is called curved or spherical.

An obtuse angle is an angle that is greater than a right angle.

An acute angle is less than a right angle.

A solid is a body measured by length, breadth, and height.

Height, thickness, and depth are the same.

A degree is a whole thing or part of a thing which is not the result of a division into sixtieths.

A minute is the sixtieth part of a degree.

A second is the sixtieth part of a minute.

A third is the sixtieth part of a second, and so on.

## CHAPTER II

### SPHERE, AXIS, POLES, ETC., ACCURATELY DEFINED

BEFORE any one can obtain a knowledge of cosmography, it is necessary that he should have an understanding of the material sphere. After that he will more easily comprehend the description of the entire world which was first handed down by Ptolemy and others and afterward enlarged by later scholars, and on which further light has recently been thrown by Amerigo Vespucci.

A sphere, as Theodosius defines it in his book on spheres, is a solid and material figure bounded by a convex surface, in the center of which there is a point, all straight lines drawn from which to the circumference are equal to one another. And while, according to modern writers, there are ten celestial spheres, there is a material sphere like the eighth (which is called the fixed sphere because it carries the fixed stars), composed of circles joined together ideally by a line and axis crossing the center, that is, the earth.

The axis of a sphere is a line passing through

## Geometrical Definitions

the center and touching with its extremities the circumference of the sphere on both sides. About this axis the sphere whirls and turns like the wheel of a wagon about its axle, which is a smoothly rounded pole, the axis being the diameter of the circle itself. Of this Manilius speaks as follows:

Through the cold air a slender line is drawn,  
Round which the starry world revolves.

The poles, which are also called *cardines* (hinges) and *vertices* (tops), are the points of the heavens terminating the axis, so fixed that they never move, but always remain in the same place. What is said here about the axis and the poles is to be referred to the eighth sphere, since for the present we have undertaken the limitation of the material sphere, which, as we have said, resembles the eighth sphere. There are accordingly two principal poles, one the northern, also called *Arcticus* (arctic) and *Borealis* (of Boreas), the other the southern, also called *Antarcticus* (antarctic). Of these Vergil says:

The one pole is always above us, but the other  
The black Styx and the deep shades see 'neath our feet.

We who live in Europe and Asia see the arctic pole always. It is so called from *Arctus*, or *Arcturus*, the Great Bear, which is also named *Calisto*, *Helice*, and *Septentrionalis*, from

## *Geometrical Definitions*

the seven stars of the Wain, which are called *Triones*; there are seven stars also in the Lesser Bear, sometimes called *Cynosura*. Wherefore Baptista Mantuanus says:

Under thy guidance, Helice, under thine, Cynosura,  
We set sail over the deep, etc.

Likewise, the wind coming from that part of the world is called *Borealis* and *Aquilonicus* (northern). Sailors are accustomed to call *Cynosura* the star of the sea.

Opposite to the arctic pole is the antarctic, whence it derives its name, for *ἀντί* in Greek is the equivalent of *contra* in Latin. This pole is also called *Noticus* and *Austronoticus* (southern). It can not be seen by us on account of the curvature of the earth, which slopes downward, but is visible from the antipodes (the existence of which has been established). It should be remarked in passing that the downward slope of a spherical object means its swelling or belly; that convexity is the contrary of it and denotes concavity.

There are, besides, two other poles of the zodiac itself, describing two circles in the heavens, the arctic and the antarctic. Since we have made mention of the zodiac, the arctic, and the antarctic (which are circles in the heavens), we shall treat of circles in the following chapter.

## CHAPTER III

### OF THE CIRCLES OF THE HEAVENS

THERE are two kinds of circles, called also *segmina* by authors, on the sphere and in the heavens, not really existing, but imaginary; namely, great and small circles.

A great circle is one which, described on the convex surface of the sphere, divides it into two equal parts. There are six great circles: the equator, the zodiac, the equinoctial colure, the solstitial colure, the meridian, the horizon.

A small circle on the sphere is one which, described on the same surface of the sphere, divides it into two unequal parts. There are four small circles: the arctic, the circle of Cancer, the circle of Capricorn, the antarctic. Thus there are in all ten, of which we shall speak in order, first of the great circles.

The equator, which is also called the girdle of the *primum mobile* and the equinoctial, is a great circle dividing the sphere into two equal parts. Any point of the equator is equally distant from both poles. It is so called because, when the sun crosses it (which happens twice a year, at

## *The Circles of the Heavens*

the first point of Aries, in the month of March, and at the first point of Libra, in the month of September), it is the equinox throughout the world and the day and night are equal. The equinox of March or of Aries is the vernal equinox, the equinox of September or of Libra the autumnal.

The zodiac is a great circle intersecting the equator at two points, which are the first points of Aries and Libra. One half of it inclines to the north, the other to the south. It is so called either from ζῳδιακόν, meaning an *animal*, because it has twelve animals in it, or from ζωή, meaning *life*, because it is understood that the lives of all the lower animals are governed by the movements of the planets. The Latins call it *signifer* (sign-bearing), because it has twelve signs in it, and the oblique circle. Therefore Vergil says:

Where the series of the signs might revolve obliquely.

In the middle of the width of the zodiac there is a circular line dividing it into two equal parts and leaving six degrees of latitude on either side. This line is called the ecliptic, because no eclipse of the sun or moon ever takes place unless both of them pass under that line in the same or in opposite degrees,—in the same, if it is to be an eclipse of the sun; in

## *The Circles of the Heavens*

opposite, if it is to be an eclipse of the moon. The sun always passes with its center under that line and never deviates from it. The moon and the rest of the planets wander at one time under the line, at another on one side or the other.

There are two colures on the sphere, which are distinguished as solstitial and equinoctial. They are so called from the Greek *κῶλον*, which means a *member* and the Latin *uri boves* (wild oxen), which Cæsar says, in the fourth book<sup>1</sup> of his "Commentaries," are found in the Hercynian forest and are of the size of elephants, because, just as the tail of an ox when raised makes a semicircular and incomplete member, so the colure always appears to us incomplete, for one half is visible, while the other half is concealed.

The solstitial colure, which is also called the circle of declinations, is a great circle passing through the first points of Cancer and Capricorn, as well as through the poles of the ecliptic and the poles of the world.

The equinoctial colure, in like manner, is a great circle passing through the first points of Aries and Libra and the poles of the world.

The meridian is a great circle passing through

<sup>1</sup> The passage referred to is in the sixth book, chapter xxviii, of the Commentaries.

## *The Circles of the Heavens*

the point vertically overhead and the poles of the world. These circles we have drawn ten degrees apart in our world map in the solid and projected on the plane. There is a point in the heavens directly over any object, which is called the zenith.

The horizon, also called *finitor* (limiting line), is a great circle of the sphere dividing the upper hemisphere (that is, the half of a sphere) from the lower. It is the circle at which the vision of those who stand under the open sky and cast their eyes about seems to end. It appears to separate the part of the heavens that is seen from the part that is not seen. The horizon of different places varies, and the point vertically overhead of every horizon is called the pole, for such a point is equally distant in all directions from the *finitor* or the horizon itself.

Having thus considered the great circles, let us now proceed to the small circles.

The arctic circle is a small circle which one pole of the zodiac describes about the arctic pole of the world by the motion of the *primum mobile*.

The antarctic is a small circle which the other pole of the zodiac makes and describes about the antarctic pole of the world. We mean by the pole of the zodiac (of which we spoke also in

## *The Circles of the Heavens*

the preceding chapter), the point that is equally distant from any point on the ecliptic, for the poles of the zodiac are the extremities of the axis of the ecliptic. The distance of the pole of the zodiac from the pole of the world is equal to the greatest declination of the sun (of which we shall say more presently).

The tropic of Cancer is a small circle which the sun, when at the first point of Cancer, describes by the motion of the *primum mobile*. This point is also called the summer solstice.

The tropic of Capricorn is a small circle which the sun, when at the first point of Capricorn, describes by the motion of the *primum mobile*. This circle is also called the circle of the winter solstice.

Since we have mentioned declination, it should be remarked that declination occurs when the sun descends from the equinoctial to the tropic of Cancer, or from us to the tropic of Capricorn; that ascension, on the contrary, occurs when the sun approaches the equator from the tropics. It is, however, improperly said by some that the sun ascends when it approaches us and descends when it goes away from us.

Thus far we have spoken of circles. Let us now proceed to the theory of the sphere and a fuller consideration of the degrees by which such circles are distant from one another.

## CHAPTER IV

### OF A CERTAIN THEORY OF THE SPHERE ACCORDING TO THE SYSTEM OF DEGREES

THE celestial sphere is surrounded by five principal circles, one great and four small—the arctic, the circle of Cancer, the equator, the circle of Capricorn, and the antarctic. Of these the equator is a great circle, the other four are small circles. These circles, or rather the spaces that are between them, authors are wont to call zones. Thus Vergil, in the *Georgics*, says:

Five zones the heavens contain ; whereof is one  
Aye red with flashing sunlight, fervent aye  
From fire ; on either side to left and right  
Are traced the utmost twain, stiff with blue ice,  
And black with scowling storm-clouds, and betwixt  
These and the midmost, other twain there lie,  
By the gods' grace to heart-sick mortals given,  
And a path cleft between them, where might wheel  
On sloping plane the system of the signs.

Of the nature of the zones more will be said in the following pages. Inasmuch as we have mentioned above the pole of the zodiac that

### *A Certain Theory of the Sphere*

describes the arctic circle, therefore in place of further consideration this must be understood to mean the upper pole of the zodiac (situated at an elevation of  $66^{\circ} 9'$ , and distant from the arctic pole  $24^{\circ} 51''$ ). It must be recalled also that a degree is the thirtieth part of a sign, that a sign is the twelfth part of a circle, and that thirty multiplied by twelve gives three hundred and sixty. So it becomes clear that a degree can be defined as the three hundred and sixtieth part of a circle.

The lower pole of the zodiac describes the antarctic circle, which is situated in the same degree of declination and is at the same distance from the antarctic pole as the upper pole of the zodiac is from the arctic. The inclination of the ecliptic, or the greatest declination of the sun toward the north (which is situated  $33^{\circ} 51''$  from the equinoctial), describes the tropic of Cancer.

The other inclination of the ecliptic, or the greatest declination of the sun toward the south (which is situated the same number of degrees as stated before), describes the tropic of Capricorn.

The distance between the tropic of Cancer and the arctic circle is  $42^{\circ} 18'$ . The distance between the tropic of Capricorn and the antarctic circle is the same.

The middle of the heavens, being equally distant from the poles of the world, makes the equator.

<sup>1</sup> Error for  $23^{\circ} 51'$ .    <sup>2</sup> Error for  $23^{\circ} 51'$ .

## *A Certain Theory of the Sphere*

Hitherto we have spoken of the five zones and of their distance from one another. We shall now briefly discuss the remaining circles.

The circle of the zodiac is determined by the poles of the zodiac. From the poles to the tropics (that is, to the greatest declinations of the sun or the solstices), the distance is  $42^{\circ} 18'$ . The width of the zodiac from the ecliptic toward either of the tropics is  $6^{\circ}$ , or in all  $12^{\circ}$ .

The solstices and the equinoxes mark the colures of declination and ascension. These intersect under the poles of the world along the axis of the heavens at spherical right angles; likewise along the equator. But the equinoctial colures going along the zodiac make oblique angles, while they make right angles along the zodiac of the solstices. The meridional circle, which is movable, is contained by the same axis under the poles themselves.

The circle of the horizon is determined by the zenith, for, as its upper pole, the zenith is everywhere equally distant from it. The circle of the horizon also divides our hemisphere from the other from east to west, but for those who are beneath the equinoctial, through the two poles of the world. The zenith of every horizon is always distant  $90^{\circ}$ , which is the fourth part of a circle, from the circumference of the horizon, while the circumference of the horizon

### *A Certain Theory of the Sphere*

is four times as great as the distance between the zenith and the horizon.

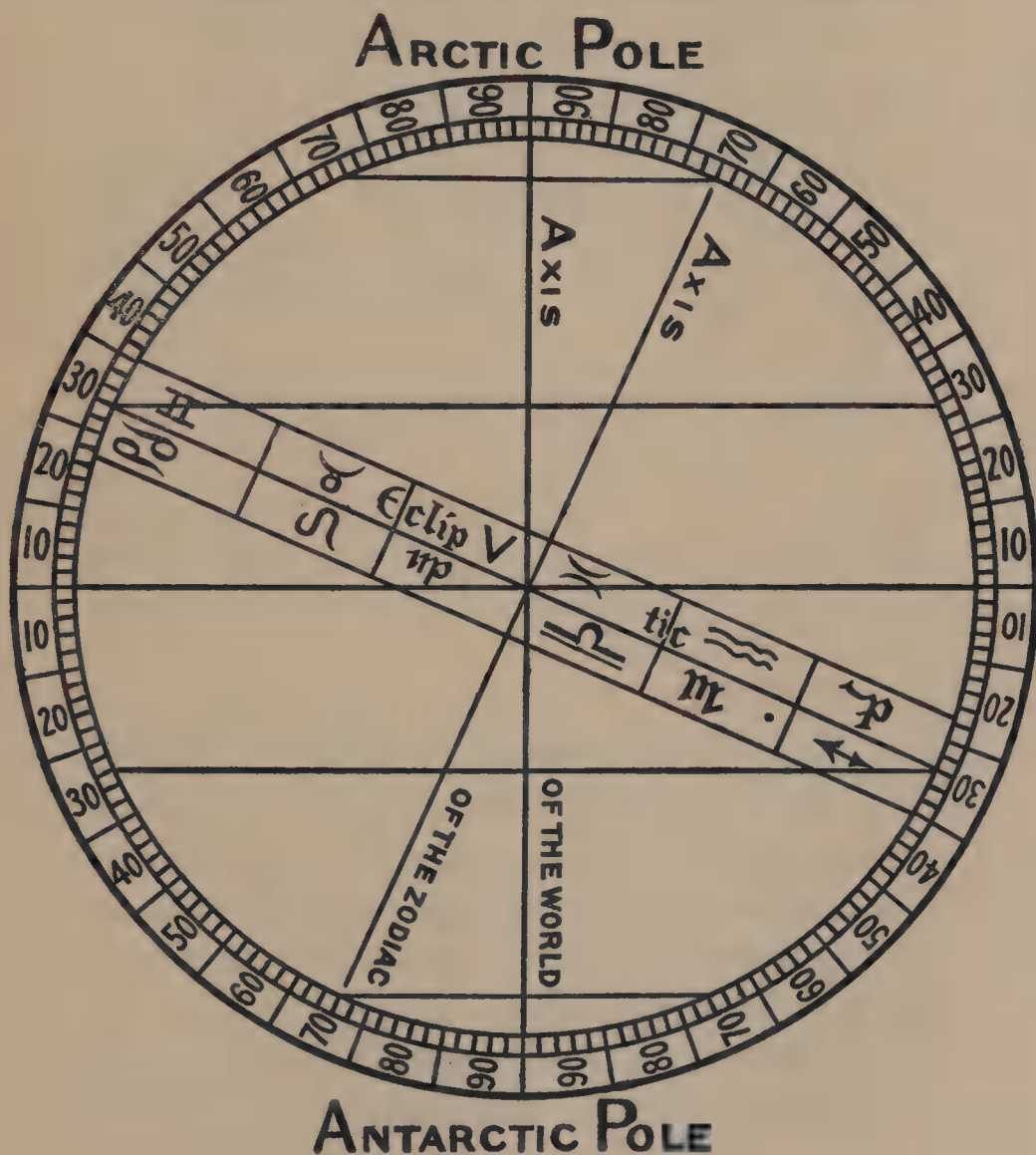
It is worthy of notice that the axis of the world in the material sphere passes diametrically from the poles through the center of the world, which is the earth.

The axis of the zodiac, however, is not apparent in the sphere, but has to be conceived. This intersects the middle of the axis of the world, making unequal or oblique angles at the center.

In this way, in the very creation of the world there seems to be a wonderful order and extraordinary arrangement. The old astronomers, in describing the form of the world, followed, as far as possible, in the footsteps of the Creator Himself, who made all things according to number, weight, and dimensions. We, too, while treating of this subject, inasmuch as we are so hampered by the conditions of our space that our system of minutes can be perceived only with difficulty, or not at all, and, if perceived, would beget even annoyance as well as error, shall infer the positions of circles from the markings of degrees in full. For there is not much difference between 51' and a full degree, which contains 60', as we have said before, and in the book on the sphere and elsewhere it is indicated in exactly this way by specialists on this subject. Therefore in the diagram which

## *A Certain Theory of the Sphere*

we shall here insert for the better understanding of these matters, the tropics of Cancer and Capricorn and the greatest declinations of the sun will be distant  $24^{\circ}$  from the equinoctial, the same as the distance of the poles of the zodiac or the arctic and antarctic circles from the poles of the world, situated at an elevation of over  $66^{\circ}$ .



CHAPTER V  
OF THE FIVE CELESTIAL ZONES AND THE AP-  
PLICATION OF THESE AND OF THE DEGREES  
OF THE HEAVENS TO THE EARTH

UP TO this point we have spoken very briefly of several geometrical principles, of the sphere, the poles, the five zones, the circles of the world, and of a certain theory in regard to these matters. Now, in regular order, if I am not mistaken, we come to the consideration of the application of these circles and degrees to the earth. It should therefore be known that on the earth there are five regions corresponding to the above-mentioned zones. Wherefore Ovid in the *Metamorphoses* says:

And as two zones the northern heaven restrain,  
The southern two, and one the hotter midst,  
With five the Godhead girt th' inclosed earth,  
And climates five upon its face imprest.  
The midst from heat inhabitable : snows  
Eternal cover two : 'twixt these extremes  
Two temperate regions lie, where heat and cold  
Meet in due mixture.

(Metamorphoses, i, 45-51, translated by Howard.)

In order to make the matter clearer, let us

### *The Five Celestial Zones*

state that the four small circles, the arctic, the circle of Cancer, the circle of Capricorn, and the antarctic, divide and separate the five zones of the heavens.

In the following diagram let  $a$  represent the arctic pole of the world,  $bc$  the arctic circle,  $de$  the circle of Cancer,  $fg$  the circle of Capricorn,  $hk$  the antarctic circle, and  $l$  the south pole.

The first zone, or the arctic, is all the space included between  $bac$ . This zone, being frozen stiff with perpetual cold, is uninhabited.

The second zone is all the space included between  $bc$  and  $de$ . This is a temperate zone and is habitable.

The third zone is all the space included between  $de$  and  $fg$ . This zone, on account of its heat, is scarcely habitable; for the sun, describing circles there with a constant whirling motion along the line  $fe$  (which for us marks the ecliptic), by reason of its heat makes the zone torrid and uninhabited.

The fourth zone is all the space included between  $fg$  and  $hk$ . This is a temperate zone and is habitable, if the immense areas of water and the changed conditions of the atmosphere permit it.

The fifth zone is all the space included between  $hk$  and  $l$ . This zone is always stiff with cold and uninhabited.

## *The Five Celestial Zones*

When we say that any zone of the heavens is either inhabited or uninhabited, we wish it to be understood that this applies to the corresponding zone lying beneath that celestial zone. When we say that any zone is inhabited or inhabitable, we mean that it is easily inhabitable. Likewise, when we say that any zone is uninhabited or uninhabitable, we understand that it is habitable with difficulty. For there are many people who now inhabit the dried-up torrid zone, such as the inhabitants of the Golden Chersonese,<sup>1</sup> the Taprobanenses,<sup>2</sup> the Ethiopians, and a very large part of the earth which had always been unknown, but which has recently been discovered by Amerigo Vespucci. In this connection we may state that we shall add the four voyages of Vespucci, translated from the Italian language into French and from French into Latin.

It must be understood, as the following diagram shows, that the first zone, which is nearest to the arctic pole, is  $23^{\circ} 51'$  in extent; the second, which is the antarctic, is equal to the arctic, and is therefore the same in extent; the third, a temperate zone, is  $42^{\circ} 18'$ ; the fourth, which is equal to it, is also  $42^{\circ} 18'$ ; the fifth, which is the torrid and is in the middle, is  $47^{\circ} 42'$ .

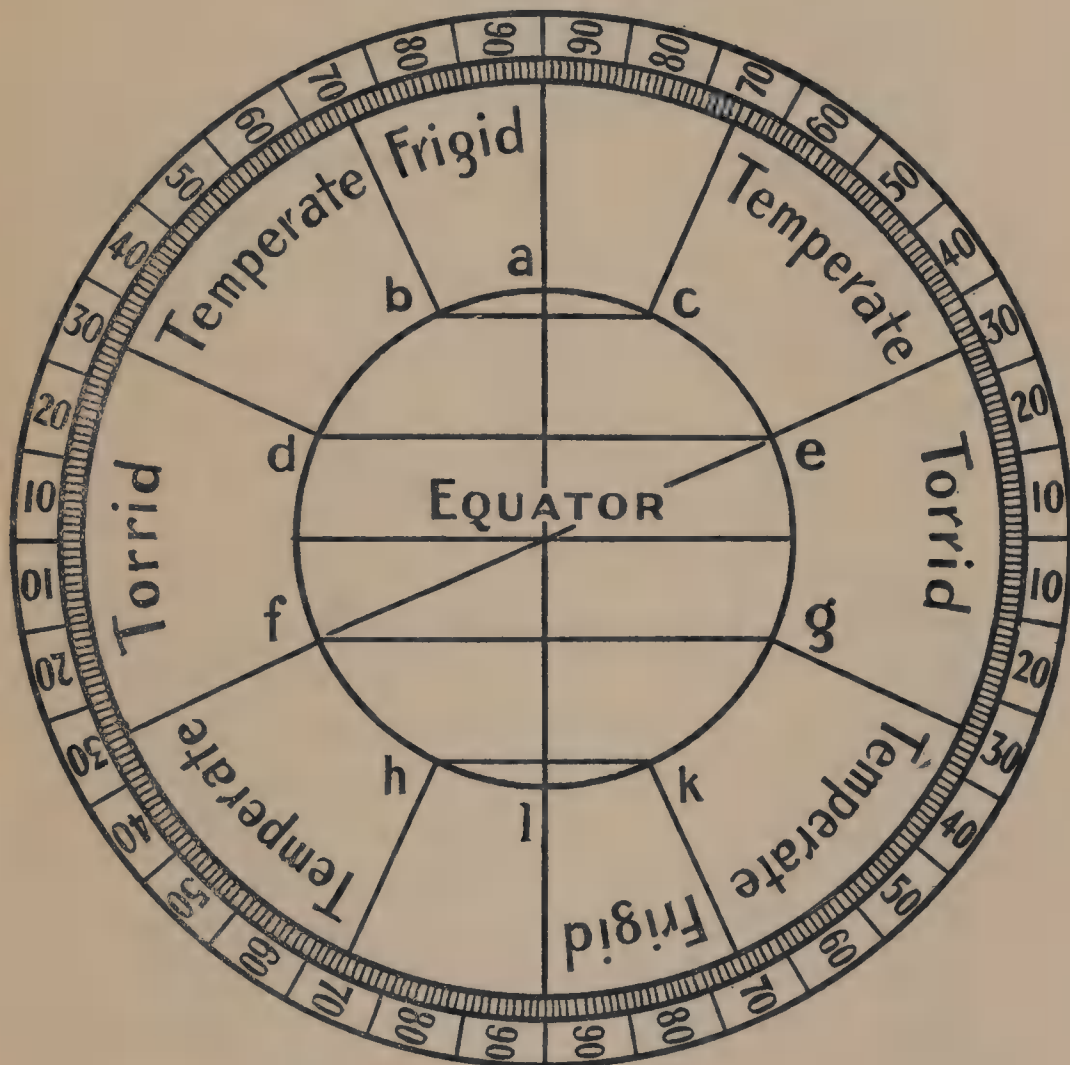
<sup>1</sup> The peninsula of Malacca in India is probably meant.

<sup>2</sup> The people of what is now the island of Ceylon.

## *The Five Celestial Zones*

Let us here insert the diagram.

**ARCTIC POLE**



**ANTARCTIC POLE**

## CHAPTER VI

### OF PARALLELS

PARALLELS, which are also called Almucantars, are circles or lines equidistant in every direction and at every point, and never running together even if extended to infinity. They bear the same relation to one another as the equator does to the four small circles on the sphere, not that the second is as distant from the third as the first is from the second, for this is false, as is clear from the preceding pages, but that any two circles joined together by a perpendicular are equally distant from each other throughout their extent. For the equator is neither nearer to nor more distant from one of the tropics at any one point than at any other, since it is everywhere distant  $23^{\circ} 51'$  from the tropics, as we have said before. The same must be said of the distance from the tropics to the two extreme circles, either of which is distant  $42^{\circ} 44''$  from the nearer tropic at all points.

Although parallels can be drawn at any distance apart, yet, to make the reckoning easier,

<sup>a</sup> Error for  $42^{\circ} 18'$ .

### *Of Parallels*

it has seemed to us most convenient, as it seemed to Ptolemy also, in our representation of universal cosmography, both in the solid and projected on the plane, to separate the parallels by as many degrees from one another as the following table shows. To this table a diagram also will be subjoined, in which we shall extend the parallels through the earth on both sides to the celestial sphere.

## Of Parallels

Parallels from the equator	Degrees of the heavens	Greatest number of hours in a day	Number of miles in one degree
21 Of Thule 8	63	20	$28\frac{1}{2}$
20	61	19	
19	58	18	$32\frac{1}{2}$
18	56	17	$\frac{1}{2}$ ( <i>sic</i> ?)
17	54	17	$37\frac{1}{2}$
16 Of the Rhiphæan Mts. 7	$51\frac{1}{2}$	$16\frac{1}{2}$	$40\frac{1}{2}$
15 Of the Borysthenes (Dnieper) 6	$48\frac{1}{2}$	16	$42\frac{1}{2}$
14	45	$15\frac{1}{2}$	44
13	$43\frac{1}{12}$	$15\frac{1}{4}$	45
12 Of Rome 5	$40\frac{1}{12}$	15	47
11	$38\frac{7}{12}$	$14\frac{3}{4}$	$48\frac{1}{2}$
10 Of Rhodes 4	36	$14\frac{1}{2}$	50
9	$33\frac{1}{3}$	$14\frac{1}{4}$	
8 Of Alexandria 3	$30\frac{1}{3}$	14	54
7	$27\frac{2}{3}$	$13\frac{3}{4}$	
6 Of Syene 2	$23\frac{5}{6}$	$13\frac{1}{2}$	57
5	$20\frac{1}{4}$	$13\frac{1}{4}$	
4 Of Meroe 1	$16\frac{5}{12}$	13	
3	$12\frac{1}{2}$	$12\frac{3}{4}$	
2	$8\frac{5}{12}$	$12\frac{1}{2}$	
1	$4\frac{1}{4}$	$12\frac{1}{4}$	59
Equator equidistant from the poles		12 always	60
1	$4\frac{1}{4}$	$12\frac{1}{4}$	59
2	$8\frac{5}{12}$	$12\frac{1}{2}$	
3	$12\frac{1}{2}$	$12\frac{3}{4}$	
4 Anti-climate of Meroe	$16\frac{5}{12}$	13	
5	$20\frac{1}{4}$	$13\frac{1}{4}$	

This diagram shows by its numbers the climates, the degrees of the parallels, and the hours.

## Of Parallels

Parallels & Climates	Degrees	Hours	Miles
6 Anti-Climate of Syene	$23\frac{5}{6}$	$13\frac{1}{2}$	52
7	$27\frac{2}{3}$	$13\frac{3}{4}$	

And so on toward the Antarctic Pole, as the following diagram shows:

### ARCTIC POLE



### ANTARCTIC POLE

## CHAPTER VII

### OF CLIMATES

ALTHOUGH the word *climate* properly means a region, it is here used to mean a part of the earth between two equidistant parallels, in which from the beginning to the end of the climate there is a difference of a half-hour in the longest day. The number of any climate, reckoned from the equator, indicates the number of half-hours by which the longest day in that climate exceeds the day that is equal to the night. There are seven of these climates, although to the south the seventh has not yet been explored. But toward the north Ptolemy discovered a country that was hospitable and habitable, at a distance represented by seven half-hours. These seven climates have obtained their names from some prominent city, river, or mountain.

1. The first climate is called *Dia Meroes* (of Meroe, modern Shendi), from *διά*, which in Greek means *through* and governs the genitive case, and Meroe, which is a city of Africa situated in the torrid zone  $16^{\circ}$  on this side of the equator, in the same parallel in which the Nile is found. Our world map, for the better understanding of which this is written, will clearly

## *Of Climates*

show you the beginning, the middle, and the end of this first climate and also of the rest, as well as the hours of the longest day in every one of them.

2. *Dia Sienes* (of Syene, modern Assuan), from Syene, a city of Egypt, the beginning of the province of Thebais.

3. *Dia Alexandrias* (of Alexandria), from Alexandria, a famous city of Africa, the chief city of Egypt, founded by Alexander the Great, of whom it has been said by the poet:

One world is not enough for the youth of Pella.<sup>1</sup>

—(Juvenal, x, 168.)

4. *Dia Rhodon* (of Rhodes), from Rhodes, an island on the coast of Asia Minor, on which in our time there is situated a famous city of the same name, which bravely resisted the fierce and warlike attacks of the Turks and gloriously defeated them.

5. *Dia Rhomes* (of Rome), from a well-known city of Europe, the most illustrious among the cities of Italy and at one time the famous conqueror of all nations and the capital of the world. It is now the abode of the great Father of Fathers.

6. *Dia Borysthenes* (of Borysthenes, modern Dnieper), from a large river of the Scythians, the fourth from the Danube.

<sup>1</sup>A city in Macedonia, the birthplace of Alexander.

## *Of Climates*

7. *Dia Rhipheon* (of the *Rhiphæan Mountains*), from the *Rhiphæan mountains*, a prominent range in *Sarmatian Europe*, white with perpetual snow.

From these prominent places, through which approximately the median lines of the climates pass, the seven climates established by *Ptolemy* derive their names.

The eighth climate *Ptolemy* did not locate, because that part of the earth, whatever it is, was unknown to him, but was explored by later scholars. It is called *Dia Tyles* (of *Thule*, modern *Iceland* or *Shetland*), because the beginning of the climate, which is the twenty-first parallel from the equator, passes directly through *Thule*. *Thule* is an island in the north, of which our poet *Vergil* says :

The farthest *Thule* will serve.

—(*Georgics*, i, 30.)

So much for the climates north of the equator. In like manner we must speak of those which are south of the equator, six of which having corresponding names have been explored and may be called *Antidia Meroes* (*Anti-climate of Meroe*), *Antidia Alexandrias*, *Antidia Rhodon*, *Antidia Rhomes*, *Antidia Borysthenes*, from the Greek particle *αντι*, which means *opposite* or *against*. In the sixth climate toward the antarctic there are situated the farthest part

## *Of Climates*

of Africa, recently discovered, the islands Zanzibar, the lesser Java, and Seula (Sumatra?), and the fourth part of the earth, which, because Amerigo discovered it, we may call Amerige, the land of Amerigo, so to speak, or America. It is of these southern climates that these words of Pomponius Mela, the geographer, must be understood, when he says:

The habitable zones have the same seasons, but at different times of the year. The Antichthones inhabit the one, and we the other. The situation of the former zone being unknown to us on account of the heat of the intervening zone, I can speak only of the situation of the latter. —(Perieg. i, 1, 9.)

Here it should be remarked that each one of the climates generally bears products different from any other, inasmuch as the climates are different in character and are controlled by different influences of the stars. Wherefore Vergil says :

Nor can all climes all fruits of earth produce.

\* \* \* \* \*

Here blithelier springs the corn, and here the grape,  
Their earth is green with tender growth of trees  
And grass unbidden. See how from Tmolus comes  
The saffron's fragrance, ivory from Ind,  
From Saba's weakling sons their frankincense,  
Iron from the naked Chalybs, castor rank  
From Pontus, from Epirus the prize-palms  
O' the mares of Elis.

—(Georgics, i, 54-59, translated by Rhoades.)

## CHAPTER VIII

### OF THE WINDS

SINCE in the preceding pages we have mentioned the winds now and then (when we spoke of the north pole, the south pole, etc.), and as it is understood that a knowledge of winds is of some importance, or rather of great advantage, to cosmography, we shall for these reasons say something in this chapter about winds, also called *spiritus* and *flatus* (breeze). A wind, therefore, as defined by the philosophers, is an exhalation, warm and dry, moving laterally around the earth, etc.

Now, inasmuch as the sun has a triple rising and setting, the summer rising and setting, the equinoctial rising and setting, and the winter rising and setting, according to its relation to the two tropics and the equator, and inasmuch as there are also two sides—to the north and to the south, all of which have winds peculiar to them; therefore it follows that there are twelve winds in all, three eastern, three western, three northern, and three southern. Of these the four which in the following diagram occupy the middle place are the principal winds; the others are secondary.

## *Of the Winds*

		East	West
Side	Tropic of Cancer	Kaikias	Chorus
Principal	Equator	Subsolanus	Favonius or Zephyrus
Side	Tropic of Capricorn	Eurus or Vulturnus	Africus or Libs
		South	North
Side		Euronotus	Septentrio
Principal		Auster or Notus	Aquilo or Boreas
Side		Libonotus	Trachias or Circius

The poets, however, by poetic license, according to their custom, instead of the principal winds use their secondary winds, which are also called side winds. Thus Ovid says:

Far to the east  
 Where Persian mountains greet the rising sun  
 Eurus withdrew. Where sinking Phœbus' rays  
 Glow on the western shores mild Zephyr fled.  
 Terrific Boreas frozen Scythia seiz'd,  
 Beneath the icy bear. On southern climes  
 From constant clouds the showery Auster rains.  
 —(Metamorphoses, i, 61-66, translated by Howard.)

## *Of the Winds*

The east wind (Subsolanus), which is rendered by the sun purer and finer than the others, is very healthful.

The west wind (Zephyrus), having a mixture of heat and moisture, melts the snows. Whence Vergil's verse :

Melts from the mountain's hoar, and Zephyr's breath  
Unbinds the crumbling clod.

—(Georgics, i, 44, translated by Rhoades.)

The south wind (Auster) frequently presages storms, hurricanes, and showers. Wherefore Ovid says :

Notus rushes forth  
On pinions dropping rain.

—(Metamorphoses, i, 264, translated  
by Howard.)

The north wind (Aquilo), by reason of the severity of its cold, freezes the waters.

And frosty winter with his north the sea's face rough  
doth wear.

—(Vergil, *Æneid*, iii, 285, translated by Morris.)

In regard to these winds, I remember, our poet Gallinarius, a man of great learning, composed the following :

Eurus and Subsolanus blow from the east.

Zephyrus and Favonius fill the west with breezes.

Auster and Notus rage on Libya's farthest shores.

Boreas and Aquilo cloud-dispelling threaten from the  
north.

## *Of the Winds*

Although the north winds are naturally cold, they are softened because they pass through the torrid zone. This has been found to be true of the south wind, which passes through the torrid zone before it reaches us, as is shown in the following lines :

Wherever the cold south wind goes, it rages and binds the waters with tight fetters. But until with its blast it passes through the torrid regions, it comes welcome to our shores and hurls back the merciless shafts of the north wind. The latter wind on the contrary, which deals harshly with us, slackening its flight, becomes in like manner gentler in the lowest part of the globe. The other winds, where they direct their various courses, soon change, as they go, the natures which are proper to their homes.

We have said enough about winds. We shall now insert a general map, indicating the poles, the axes, the circles, great as well as small, the east, the west, the five zones, the degrees of longitude and latitude, both on the earth and in the heavens, the parallels, the climates, the winds, etc.

## CHAPTER IX

### OF CERTAIN ELEMENTS OF COSMOGRAPHY

IT is clear from astronomical demonstrations that the whole earth is a point in comparison with the entire extent of the heavens; so that if the earth's circumference be compared to the size of the celestial globe, it may be considered to have absolutely no extent. There is about a fourth part of this small region in the world which was known to Ptolemy and is inhabited by living beings like ourselves. Hitherto it has been divided into three parts, Europe, Africa, and Asia.

Europe is bounded on the west by the Atlantic Ocean, on the north by the British Ocean, on the east by the river Tanais (modern Don), Lake Maeotis (modern Sea of Azov), and the Black Sea, and on the south by the Mediterranean Sea. It includes Spain, Gaul, Germany, Rætia, Italy, Greece, and Sarmatia. Europe is so called after Europa, the daughter of King Agenor. While with a girl's enthusiasm she was playing on the sea-shore accompanied by her Tyrian maidens and was gathering flowers in baskets, she is believed to have been carried off by

### *Of Certain Elements of Cosmography*

Jupiter, who assumed the form of a snow-white bull, and after being brought over the seas to Crete seated upon his back to have given her name to the land lying opposite.

Africa is bounded on the west by the Atlantic Ocean, on the south by the Ethiopian Ocean, on the north by the Mediterranean Sea, and on the east by the river Nile. It embraces the Mauritanias, viz., Tingitana (modern Tangiers) and Cæsarea, inland Libya, Numidia (also called Mapalia), lesser Africa (in which is Carthage, formerly the constant rival of the Roman empire), Cyrenaica, Marmarica (modern Barca), Libya (by which name also the whole of Africa is called, from Libs, a king of Mauritania), inland Ethiopia, Egypt, etc. It is called Africa because it is free from the severity of the cold.

Asia, which far surpasses the other divisions in size and in resources, is separated from Europe by the river Tanais (Don) and from Africa by the Isthmus, which stretching southward divides the Arabian and the Egyptian seas. The principal countries of Asia are Bithynia, Galatia, Cappadocia, Pamphylia, Lydia, Cilicia, greater and lesser Armenia, Colchis, Hyrcania, Iberia, and Albania; besides many other countries which it would only delay us to enumerate one by one. Asia is so called after a queen of that name.

### *Of Certain Elements of Cosmography*

Now, these parts of the earth have been more extensively explored and a fourth part has been discovered by Amerigo Vespucci (as will be set forth in what follows). Inasmuch as both Europe and Asia received their names from women, I see no reason why any one should justly object to calling this part Amerige, i.e., the land of Amerigo, or America, after Amerigo, its discoverer, a man of great ability. Its position and the customs of its inhabitants may be clearly understood from the four voyages of Amerigo, which are subjoined.

Thus the earth is now known to be divided into four parts. The first three parts are continents, while the fourth is an island, inasmuch as it is found to be surrounded on all sides by the ocean. Although there is only one ocean, just as there is only one earth, yet, being marked by many seas and filled with numberless islands, it takes various names. These names may be found in the *Cosmography*, and Priscian in his translation of Dionysius enumerates them in the following lines:

“The vast abyss of the ocean, however, surrounds the earth on every side; but the ocean, although there is only one, takes many names. In the western countries it is called the Atlantic Ocean, but in the north, where the Arimaspi are ever warring, it is called the sluggish sea,

## *Of Certain Elements of Cosmography*

the Saturnian Sea, and by others the Dead Sea,

\* \* \* \* \*

Where, however, the sun rises with its first light, they call it the Eastern or the Indian Sea. But where the inclined pole receives the burning south wind, it is called the Ethiopian or the Red Sea,

\* \* \* \* \*

Thus the great ocean, known under various names, encircles the whole world;

\* \* \* \* \*

“Of its arms the first that stretches out breaks through Spain with its waves, and extends from the shores of Libya to the coast of Pamphylia. This is smaller than the rest. A larger gulf is the one that enters into the Caspian land, which receives it from the vast waters of the north. The arm of the sea which Tethys (the ocean) rules as the Saturnian Sea is called the Caspian or the Hyrcanian. But of the two gulfs that come from the south sea, one, the Persian, running northward, forms a deep sea, lying opposite the country where the Caspian waves roll; while the other rolls and beats the shores of Panchæa and extends to the south opposite to the Euxine Sea.

\* \* \* \* \*

“Let us begin in regular order with the waters of the Atlantic, which Cadiz makes

### *Of Certain Elements of Cosmography*

famous by Hercules' gift of the pillar, where Atlas, standing on a mountain, holds up the columns that support the heavens. The first sea is the Iberian, which separates Europe from Libya, washing the shores of both. On either side are the pillars. Both face the shores, the one looking toward Libya, the other toward Europe. Then comes the Gallic Sea, which beats the Celtic shores. After this the sea, called by the name of the Ligurians, where the masters of the world grew up on Latin soil, extends from the north to Leucopetra; where the island of Sicily with its curving shore forms a strait. Cynos (modern Corsica) is washed by the waters that bear its name and flow between the Sardinian Sea and the Celtic. Then rolls the surging tide of the Tyrrhenian Sea, turning toward the south; it enters the sea of Sicily, which turns toward the east and spreading far from the shores of Pachynum extends to Crete, a steep rock, which stands out of the sea, where powerful Gortyna and Phæstum are situated in the midst of the fields. This rock, resembling with its peak the forehead of a ram, the Greeks have justly called *Κριοῦ μέτωπον* (ram's forehead). The sea of Sicily ends at Mt. Garganus on the coast of Apulia.

“Beginning there the vast Adriatic extends toward the northwest. There also is the Ionian

### *Of Certain Elements of Cosmography*

Sea, famous throughout the world. It separates two shores, which, however, meet in one point. On the right fertile Illyria extends, and next to this the land of the warlike Dalmatians. But its left is bounded by the Ausonian peninsula, whose curving shores the three seas, the Tyrrhenian, the Sicilian, and the vast Adriatic, encircle on all sides. Each of these seas within its limits has a wind peculiar to itself. The west wind lashes the Tyrrhenian, the south wind the Sicilian, while the east wind breaks the waters of the Adriatic which roll beneath its blasts.

“Leaving Sicily the sea spreads its deep expanse to the greater Syrtis which the coast of Libya encircles. After the greater Syrtis passes into the lesser, the two seas beat far and wide upon the re-echoing shores. From Sicily the Cretan Sea stretches out toward the east as far as Salmonis, which is said to be the eastern end of Crete.

“Next come two vast seas with dark waves, lashed by the north wind coming from Ismarus, which rushes straight down from the regions of the north. The first, called the Pharian Sea, washes the base of a steep mountain. The second is the Sidonian Sea, which turns toward the north, where the gulf of Issus joins it. This sea does not continue far in a straight line; for it is broken by the shores of Cilicia. Then

### *Of Certain Elements of Cosmography*

bending westward it winds like a dragon because, forcing its way through the mountains, it devastates the hills and worries the forests. Its end bounds Pamphylia and surrounds the Chelidonian rocks. Far off to the west it ends near the heights of Patara.

“Next look again toward the north and behold the Ægean Sea, whose waves exceed those of all other seas, and whose vast waters surround the scattered Cyclades. It ends near Imbros and Tenedos, near the narrow strait through which the waters of the Propontis issue, beyond which Asia with its great peoples extends to the south, where the wide peninsula stretches out. Then comes the Thracian Bosphorus, the mouth of the Black Sea. In the whole world they say there is no strait narrower than this. There are found the Symplegades, close together. There to the east the Black Sea spreads out, situated in a northeasterly direction. From either side a promontory stands out in the middle of the waters; one, coming from Asia on the south, is called Carambis; the other on the opposite side juts out from the confines of Europe and is called *Κριοῦ μέτωπον* (ram’s forehead.) They face each other, therefore, separated by a sea so wide that a ship can cross it only in three days. Thus you may see the Black Sea looking like a double sea, resembling the curve of a bow, which

### *Of Certain Elements of Cosmography*

is bent when the string is drawn tight. The right side resembles the string, for it forms a straight line, outside of which line is found Carambis only, which projects toward the north. But the coast that encloses the sea on the left side, making two turns, describes the arc of the bow. Into this sea toward the north Lake Mæotis (modern Sea of Azov) enters, enclosed on all sides by the land of the Scythians, who call Lake Mæotis the mother of the Black Sea. Indeed, here the violent sea bursts forth in a great stream, rushing across the Cimmerian Bosphorus (modern Crimea), in those cold regions where the Cimmerians dwell at the foot of Taurus. Such is the picture of the ocean; such the glittering appearance of the deep."

(Priscian, *Periegesis*, 37, foll., ed. of Krehl.)

The sea, as we have said before, is full of islands, of which the largest and the most important, according to Ptolemy, are the following:

Taprobane (modern Ceylon), in the Indian Ocean under the equator; Albion, also called Britain and England; Sardinia, in the Mediterranean Sea; Candia, also called Crete, in the Ægean Sea; Selandia; Sicily, in the Mediterranean Sea; Corsica; Cyprus.

Unknown to Ptolemy: Madagascar, in the Prasodes Sea; Zanzibar; Java, in the East Indian

*Of Certain Elements of Cosmography*

Ocean ; Angama ; Peuta, in the Indian Ocean ; Seula ; Zipangri (Japan) ; in the Western Ocean.

Of these Priscian says :

“These are the large islands which the waters of the ocean surround. There are many other smaller islands, scattered about in different parts of the world, that are unknown, and that are either difficult of access to hardy sailors or suitable for harbors. Their names I cannot easily express in verse.”

(*Periegesis*, 609-613.)

In order to be able to find out the distance between one place and another, the elevation of the pole must first be considered. It should therefore be briefly remarked that, as is clear from what precedes, both poles are on the horizon for those who live on the parallel of the equator. But as one goes toward the north, the elevation of the pole increases the farther one goes away from the equator. This elevation of the pole indicates the distance of places from the equator. For the distance of any place from the equator varies as the elevation of the pole at that place. From this the number of miles is easily ascertained, if you will multiply the number of degrees of elevation of the pole. But according to Ptolemy, from the equator to the arctic pole miles are not equal in all parts of the world. For any one of the degrees from the

## *Of Certain Elements of Cosmography*

first degree of the equator up to the twelfth contains sixty Italian miles, which are equivalent to fifteen German miles, four Italian miles being generally reckoned equal to one German mile. Any degree from the twelfth degree up to the twenty-fifth contains fifty-nine miles, or fourteen and three-quarter German miles.

In order to make the matter clearer, we shall insert the following table :

	Degrees	Degrees	Italian Miles	German Miles
Equator—	1 up to	12 cont'ng	60	15
	12	25	59	14 $\frac{3}{4}$
Tropic—	25	30	54	13 $\frac{1}{2}$
	30	37	50	12 $\frac{1}{2}$
	37	41	47	11 $\frac{1}{4}$ <sup>1</sup>
	41	51	40	10
	51	57	32	8
	57	63	28	7
	63	66	26	6 $\frac{1}{2}$
Arctic Circle—	66	70	21	5 $\frac{1}{4}$
	70	80	6	1 $\frac{1}{2}$
Arctic Pole—	80	90		0

<sup>1</sup> Error for 11  $\frac{3}{4}$ .

In like manner from the equator to either arctic or antarctic pole the number of miles in a degree of latitude varies. If you wish to find out the number of miles between one place and another, examine carefully in what degree of latitude the two places are and how many degrees there are between them; then find out from the above table how many miles there are in a degree of that kind, and multiply this number

### *Of Certain Elements of Cosmography*

by the number of degrees between the places. The result will be the number of miles between them. Since these will be Italian miles, divide by four and you will have German miles.

All that has been said by way of introduction to the Cosmography will be sufficient, if we merely advise you that in designing the sheets of our world-map we have not followed Ptolemy in every respect, particularly as regards the new lands, where on the marine charts we observe that the equator is placed otherwise than Ptolemy represented it. Therefore those who notice this ought not to find fault with us, for we have done so purposely, because in this we have followed Ptolemy, and elsewhere the marine charts. Ptolemy himself, in the fifth chapter of his first book, says that he was not acquainted with all parts of the continent on account of its great size, that the position of some parts on account of the carelessness of travelers was not correctly handed down to him, and that there are other parts which happen at different times to have undergone variations on account of the cataclysms or changes in consequence of which they are known to have been partly broken up. It has been necessary therefore, as he himself says he also had to do, to pay more attention to the information gathered in our own times. We have therefore arranged matters so that in

## *Appendix*

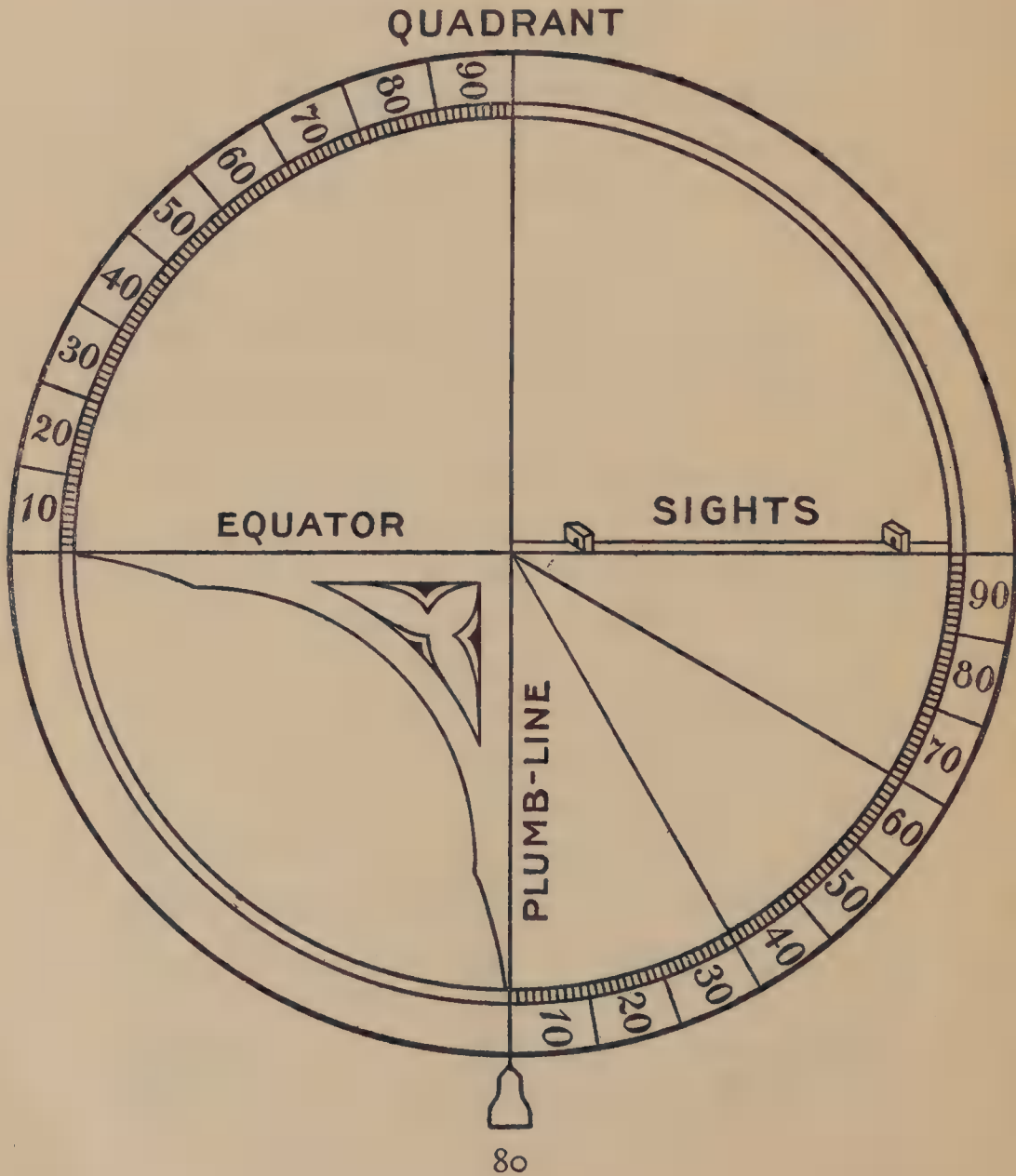
the plane projection we have followed Ptolemy as regards the new lands and some other things, while on the globe, which accompanies the plane, we have followed the description of Amerigo that we subjoin.

### APPENDIX

BEFORE closing, we shall add to the foregoing, as an appendix or corollary, a quadrant, by which may be determined the elevation of the pole, the zenith, the center of the horizon, and the climates; although, if rightly considered, this quadrant, of which we shall speak, has a bearing on this subject. For a cosmographer ought to know especially the elevation of the pole, the zenith, and the climates of the earth. This quadrant, then, is constructed in the following way. Divide any circle into four parts in such a way that the two diameters intersect at the center at right angles. One of these, which has sights at either end, will represent the axis of the poles of the world, the other the equator. Then divide that part of the circle which is between the semi-axis that has the sights and the other semi-diameter into ninety parts and the opposite part also into the same number, fix a plumb-line to the center, and your quadrant will be ready. The quadrant is used as follows: turn it so that you will see the

## *Appendix*

pole directly through the openings in the sights and then toward the climate and the degree to which the plumb-line will fall. Your region, as well as your zenith and the center of your horizon, lies in that climate and at that degree of elevation.



## *Appendix*

Having now finished the chapters that we proposed to take up, we shall here include the distant voyages of Vespucci, setting forth the consequences of the several facts as they bear upon our plan.

THE END OF THE OUTLINES

## PHILESIUS, BORN IN THE VOSGES

### TO THE READER

WHERE the fields enriched by the papyrus-producing Siris flower and the lakes of the Moon give birth to mighty rivers, on the right are the mountains of Ius, Danchis, and Mascha, at the foot of which dwell the Ethiopians. From this region rises Africus (southwest wind), which with Libonotus (west-southwest wind) blows over the heated lands. From the other direction blows Vulturnus (east-southeast wind) upon a sweltering people, coming, as it does, in its rapid course over the Indian Ocean. There under the equator lies Taprobana, while Bassa is seen in the Prasodes Sea. Beyond Ethiopia and Bassa in the sea lies a land unknown to your maps, Ptolemy, situated under the tropic of Capricorn and its companion Aquarius. To the right lies a land encircled by the vast ocean and inhabited by a race of naked men. This land was discovered by him whom fair Lusitania boasts of as her king, and who sent a fleet across the sea. But why say more? The position and the customs of the newly-discovered race are set forth in Amerigo's book. Read this, honest reader, with all sincerity and do not imitate the rhinoceros.

THE END

# THE FOUR VOYAGES OF AMERIGO VESPUCCI

TRANSLATED FROM THE FRENCH INTO LATIN

---

## *The Translator's Decastich to the Reader.*

You who will read, perchance, this slender tome  
Will find within a voyage deftly told.  
It tells of lands and peoples lately found ;  
A novel tale well suited to amuse.  
A worthy task for Maro's lofty pen,  
Which dressed in noble words a theme sublime.  
He who the Trojan heroes wand'ring sang  
Should eke have sung thy voyages, Vespucci.  
When in our book you've visited these lands,  
The contents probe ; 'tis not the writer's care.

## *Distich to the Reader.*

Since what is new and well told pleases you,  
I bring you what's amusing here and new.

THE END.

## THE FOUR VOYAGES OF AMERIGO VESPUCCI

TO THE most illustrious René, King of Jerusalem and of Sicily, Duke of Lorraine and Bar, Amerigo Vespucci pays humble homage and presents appropriate recommendations.

Perchance, most illustrious King, your majesty will be astonished at my foolhardiness, because I feel no apprehension in addressing to you the present long letter, even though I know you to be incessantly occupied with matters of the highest importance and with numerous affairs of State. And I shall be considered not only a presumptuous man but one who has accomplished a useless work in undertaking to send you also a story which hardly concerns your position, addressed by name to Ferdinand, King of Castile, and written in an unattractive and quite unpolished style, as if I were a man unacquainted with the Muses and a stranger to the refining influence of learning. My trust in your merits, and the absolute truth of the following accounts (on matters which neither ancient nor modern authors have written), will perhaps excuse me to your Majesty.

### *The Four Voyages of Amerigo Vespucci*

I was urged to write chiefly by the bearer of the present letters, Benvenuto, an humble servant of your Majesty and a friend of whom I need not be ashamed. When this gentleman found me at Lisbon, he begged me to acquaint your Majesty with the things seen by me during my four voyages to different quarters of the globe. For, you must know that I have completed four voyages of discovery to new lands: two of them were undertaken by the order of Ferdinand, the illustrious King of Castile, and carried me toward the west, through the Great Gulf of the Ocean; the other two were undertaken at the command of Manuel, King of Portugal, and carried me toward the south.

I have therefore prepared myself for the task urged upon me by Benvenuto, hoping that your Majesty will not exclude me from the number of your insignificant servants, especially if you recollect that formerly we were good friends. I refer to the years of our youth, when we were fellow-students, and together drank in the elements of grammar under the holy and venerable friar of St. Mark, my uncle, Friar Giorgio Antonio Vespucci—a man of good life and tried learning. Had it been possible for me to follow in his footsteps, I should be quite a different man to-day, as Petrarch says. However that may be, I am not ashamed of being

*The Four Voyages of Amerigo Vespucci*

what I am ; for I have always taken pleasure in virtue for its own sake and in scholarship. If, then, these narratives give you no pleasure whatever, I shall repeat the words which Pliny once wrote to Mæcenas, "Formerly you were wont to take delight in my pleasantries." Your Majesty, it is true, is ever occupied with affairs of State ; still, you can secretly steal just a little time in which to read these accounts, trifling though they be. I assure you that their very novelty will please. You will find in these pages no slight relief from the wasting cares and problems of government. My book will serve you as the sweet fennel, which, when taken after meals, is wont to leave a pleasant breath and to promote a better digestion.

If, by chance, I have been more prolix than the subject warrants, I crave your indulgence.

Farewell.

## P R E F A C E

MOST illustrious King! Your Majesty must know that I came to this country primarily as a merchant. I continued in that career for the space of four years. But when I observed the various changes of fortune, and saw how vain and fleeting riches are, and how for a time they lift man to the top of the wheel and then hurl him headlong to the bottom—him, who had boasted of wide possessions;—when I saw all this, and after I had personally suffered such experiences, I determined to abandon the business career and to devote all my efforts to worthier and more enduring ends.

And so I set about visiting different parts of the world and seeing its many wonders. Both time and place were favorable to my plans. For Ferdinand, King of Castile, was at that time fitting out four ships to discover new lands in the west, and His Highness made me one of that company of explorers. We set sail from the harbor of Cadiz on the 20th of May, 1497, making our way through the Great Gulf of the

## *Preface*

Ocean. This voyage lasted eighteen months, during which we discovered many lands and almost countless islands (inhabited as a general rule), of which our forefathers make absolutely no mention. I conclude from this that the ancients had no knowledge of their existence. I may be mistaken; but I remember reading somewhere that they believed the sea to be free and uninhabited. Our poet Dante himself was of this opinion, when, in the 18th canto of the *Inferno*, he pictures the death of Ulysses. From the following pages, however, your Majesty will learn of the marvels I saw.

A description of the chief lands and of various islands, of which ancient authors make no mention, but which recently, in the 1497th year from the incarnation of Our Lord, were discovered in the course of four ocean voyages undertaken by order of their Serene Highnesses of Spain and Portugal. Of these voyages, two were through the western sea, by order of King Ferdinand of Castile; the remaining two were through southern waters, by order of Manuel, King of Portugal. To the above-mentioned Lord Ferdinand, King of Castile, Amerigo Vespucci, one of the foremost captains and commanders of that fleet, dedicates the following account of the new lands and islands.

## *The First Voyage*

### THE FIRST VOYAGE

IN the year of Our Lord 1497, on the 20th day of May, we set sail from the harbor of Cadiz in four ships. On our first run, with the wind blowing between the south and the southwest<sup>1</sup>, we made the islands formerly called the Fortunate Islands, but now the Grand Canary, situated at the edge of the inhabited west and within the third climate. At this place, the North Pole rises  $27\frac{2}{3}$  degrees above the horizon, the islands themselves being 280 leagues from the city of Lisbon, in which this present pamphlet was written. There we spent almost eight days, providing ourselves with fuel and water and other necessary things. Then, after first offering our prayers to God, we raised and spread our sails to the wind, shaping our course to the west, with a point to southwest. We kept on this course for some time, and just as the 27th day was past we reached an unknown land, the mainland as we thought. It was distant from the islands of the Grand Canary 1000 leagues, more or less; it was inhabited, and was situated in the Torrid Zone. This we ascertained from the following observations: that the North Pole rises 16 degrees above the horizon of this new land, and that it is 75 degrees more to the west

<sup>1</sup>Vespucci names the wind according to the point toward which it blows.

## *The First Voyage*

than the islands of Grand Canary—at least so all our instruments showed.

Here we dropped the bow anchors and stationed our fleet a league and a half from the shore. We then lowered a few boats, and, filling them with armed men, we pulled as far as the land. The moment we approached, we rejoiced not a little to see hordes of naked people running along the shore. Indeed, all those whom we saw going about naked seemed also to be exceedingly astonished at us, I suppose because they noticed that we wore clothing, and presented a different appearance from them. When they realized that we had actually arrived, they all fled to a hill near by; and though we beckoned to them and made signs of peace and friendship, we could not induce them to approach. When night closed rapidly upon us, we felt some fear in trusting our ships in such a dangerous roadstead, for there was here no protection against violent seas. We therefore agreed to depart early the next morning in search of some harbor where we might station our ships in a safe anchorage. After we had formed this resolution, we spread our sails to a gentle breeze blowing along the shore, keeping land always in sight and continually seeing the inhabitants along the beach. In this way we sailed for two whole days, and discovered a place quite suited to our

## *The First Voyage*

ships, where we anchored only one-half a league from the land. Here we again saw countless hordes of people. Desiring to see them close by and to speak with them, on that very day we approached the shore in our boats and skiffs, and then we landed in good order, about forty strong. The natives, however, showed themselves very loath to approach us or have anything to do with us. We could do nothing to induce them to speak with us or to enter upon any kind of communication. But finally, by dint of much labor undertaken with this one purpose in view, we managed to allure a few of them by giving them little bells and mirrors and pieces of crystal and other such trifles. In this way they became quite easy about us. They now came to meet us, and in fact to treat concerning terms of peace and friendship. At nightfall we took leave of them and returned to our ships. The next day, when the sun was quite risen, we again saw upon the beach an endless number of men and women, the latter carrying their children with them. We furthermore noticed that they were bringing with them all their household utensils, which will be described below in their proper place. The nearer we approached the shore, more and more of the natives jumped into the water (for there are many expert swimmers among them), and swam out the dis-

## *The First Voyage*

tance of a crossbow shot to meet us. They received us kindly, and in fact mingled among us with as complete assurance as if we had often met before and had frequently had dealings together. At this we were then very little pleased.

And now (so far as occasion permits), we shall devote some space to a description of their customs,—such as we were able to observe.

### ON THE CUSTOMS OF THE NATIVES AND THEIR MODE OF LIFE

IN regard to their life and customs, all of them, both men and women, go about entirely naked, with no more covering for their private parts than when they were born. The men are of medium size, but are very well proportioned. The color of their skin approaches red, like the hair of a lion, and I believe that, if it were their custom to wear clothing, they would be as fairskinned as we are. They have no hair on their body, with the exception of that on the head, which is long and black, particularly that of the women, who are beautiful for this very reason. Their features are not very handsome, because they have broad cheek-bones like the Tartars. They do not allow any hair to grow on their eyebrows nor their eyelids nor anywhere on their body (with the exception of the head), for this reason,—because they deem it

### *The First Voyage*

coarse and animal-like to have hair on the body.

All of them, both men and women, are graceful in walking and swift in running. Indeed, even their women (as we have often witnessed) think nothing of running a league or two, wherein they greatly excel us Christians. They all swim remarkably well, in fact better than one would believe possible ; and the women are far better swimmers than the men, a statement which I can make with authority, for we frequently saw them swim in the sea for two leagues without any assistance whatsoever.

Their weapons are the bow and arrow, which they have learned to make very skillfully. They are unacquainted with iron and the metals, and consequently, in place of iron, they tip their arrows with the teeth of animals and fishes, and they also often harden the arrows by burning their ends. They are expert archers, with the result that they strike with their arrows whatever they aim at. In some places also the women are very skillful with the bow and arrow. They have other weapons also, such as spears or stakes sharpened at the ends, and clubs with wonderfully carved heads.

They are wont to wage war upon neighbors speaking a different language, fighting most mercilessly and sparing none, except to reserve

## *The First Voyage*

them for more cruel torture later. When they go forth to battle, they take their wives with them, not that they too may participate in the fight, but that they may carry behind the fighting men all the necessary provisions. For, as we ourselves have often seen, any woman among them can place on her back, and then carry for thirty or forty leagues, a greater burden than a man (and even a strong man) can lift from the ground. They have no generals and no captains; in fact, since every one is his own leader, they go forth to war in no definite order. They never fight for power or territory, or for any other improper motive. Their one cause for war is an enmity of long standing, implanted in them from olden times. When questioned concerning the cause of such hostility, they give no other reason except that it is to avenge the death of their ancestors. Living as they do in perfect liberty, and obeying no man's word, they have neither king nor lord.

They are, however, especially inclined to war, and gird themselves for braver efforts when one of their own number is either a captive in the hands of the enemy or has been killed by them. In that case the oldest blood-relation of the prisoner or murdered man rises, rushes forth into the roads and villages, shouting and calling upon all, and urging them to hasten into battle with

### *The First Voyage*

him to avenge the death of his kinsman. All are quickly stirred to the same feeling, gird themselves for the fight and make a sudden dash upon their enemies.

They observe no laws, and execute no justice. They do not punish their evildoers; indeed, not even the parents rebuke or chastise their children; and, wonderful to relate, we several times saw them quarrel among themselves. They are simple in their speech, but very shrewd and crafty. They speak rarely; and when they do speak, it is in a low tone, using the same sounds as we. On the whole they shape their words either on the teeth or the lips, employing, of course, different words from those of our language. They have many different idioms, for we found such a variety of tongues in every hundred leagues that they do not understand one another.

They observe most barbarous customs in their eating; indeed, they do not take their meals at any fixed hours, but eat whenever they are so inclined, whether it be day or night. At meals they recline on the ground, and do not use either tablecloths or napkins, being entirely unacquainted with linen and other kinds of cloth. The food is served in earthen pots which they make themselves, or else in receptacles made out of half-gourds. They sleep in a species of large

## *The First Voyage*

net made of cotton and suspended in the air; and though this mode of sleeping may appear odd and uncomfortable, I testify that, on the contrary, it is very pleasant; for it was frequently my lot to sleep in such nets, and I had a feeling of greater comfort then than when under the coverlets which we had with us.

In their person they are neat and clean, for the reason that they bathe very frequently.

\* \* \* \* \*

In their sexual intercourse they have no legal obligations. In fact, each man has as many wives as he covets, and he can repudiate them later whenever he pleases, without its being considered an injustice or disgrace, and the women enjoy the same rights as the men. The men are not very jealous; they are, however, very sensual. The women are even more so than the men. I have deemed it best (in the name of decency) to pass over in silence their many arts to gratify their insatiable lust. They are very prolific in bearing children, and do not omit performing their usual labors and tasks during the period of pregnancy. They are delivered with very little pain,—so true is this that on the very next day they are completely recovered and move about everywhere with perfect ease. In fact, immediately after the delivery they go to some stream to wash, and then come out of the water as

## *The First Voyage*

whole and as clean as fishes. However, they are of such a cruel nature and harbor such violent hatreds that, if the husbands chance to anger them, they immediately commit some wrong. For instance, to appease their great wrath, they kill the fetus within their own wombs, and then cause an abortion. In this way countless offspring are destroyed. They have handsome, well-proportioned and well-knit figures; indeed, no blemish can possibly be discovered in them. . . .

No one of this race, as far as we saw, observed any religious law. They can not justly be called either Jews or Moors; nay, they are far worse than the gentiles themselves or the pagans, for we could not discover that they performed any sacrifices nor that they had any special places or houses of worship. Since their life is so entirely given over to pleasure, I should style it Epicurean.

They hold their habitations in common. Their dwellings are bell-shaped, and are strongly built of large trees fastened together, and covered with palm leaves, which offer ample protection against the winds and storms. In some places these dwellings were so large that we found as many as six hundred persons living in a single building. Of all these dwellings we found that eight were most thickly populated; in fact, that ten thousand souls lived within them at one and

## *The First Voyage*

the same time. Every eight or seven years they move the seat of their abodes. When asked the reason for this, they gave a most natural answer. They said that it was on account of the continual heat of a strong sun, and because, from dwelling too long in the same place, the air became infected and contaminated, and brought about various diseases of the body. And in truth, their point seemed to us to be well taken.

Their riches consist of variegated birds' feathers, and of strings of beads (like our *pater nosters*), made of fish bones, or of green or white stones. These they wear as ornaments on the forehead, or suspended from their lips and ears. Many other such useless trifles are considered riches by them, things to which we attach no value whatever. Among them there is neither buying nor selling, nor is there an exchange of commodities, for they are quite content with what nature freely offers them. They do not value gold, nor pearls, nor gems, nor such other things as we consider precious here in Europe. In fact they almost despise them, and take no pains to acquire them. In giving, they are by nature so very generous that they never deny anything that is asked of them. But as soon as they have admitted any one to their friendship, they are just as eager to ask and to receive. The greatest and surest seal of their

### *The First Voyage*

friendship is this: that they place at the disposal of their friends their own wives and daughters, both parents considering themselves highly honored if any one deigns to lead their daughter (even though yet a maiden) into concubinage. In this way (as I have said) they seal the bond of their friendship.

In burying the dead they follow many different customs. Some, indeed, follow the practice of inhumation, placing at the head water and food, for they believe that the dead will eat and subsist thereupon. But there is no further grief at their departure, and they perform no other ceremonies. In some places a most barbarous and inhuman rite is practised. When any one of their fellow-tribesmen is believed to be at the point of death, his relations take him into some great forest, where they place him in one of those nets in which they are accustomed to sleep. They then suspend him thus reclining between two trees, dance around him for a whole day, and then at nightfall return to their habitations, leaving at the head of the dying man water and food to last him about four days. If at the end of this period the sick man can eat and drink, becomes convalescent, regains his health, and returns to his own habitation, then all his relations, whether by blood or marriage, welcome him with the greatest ceremonies. But

### *The First Voyage*

there are few who can pass safely through so severe an ordeal. Indeed, no one ever visits the sick man after he is abandoned in the woods. Should he, therefore, chance to die, he receives no further burial. They have many other savage rites of burial, which I shall not mention, to avoid the charge of being too prolix.

In their sicknesses they employ many different kinds of medicines, so different from ours and so discordant with our ideas that we wondered not a little how any one could possibly survive. For, as we learned from frequent experience, if any one of them is sick with fever, they immerse and bathe him in very cold water just when the fever is at its height. Then they compel him to run back and forth for two hours around a very warm fire until he is fairly aglow with heat, and finally lead him off to sleep. We saw very many of them restored to health by this treatment. Very frequently they practise also dieting as one of their cures, for they can do without food and drink for three or four days. Again, they commonly draw blood, not from their arms (with the exception of the shoulder-blade), but from their loins and the calves of their legs. Often they bring about vomiting by chewing certain herbs which they use as medicines; and they have, in addition,

## *The First Voyage*

many other cures and remedies which it would be tedious to enumerate.

They are full-blooded and phlegmatic, owing to the food they eat, which consists chiefly of roots, fruits, herbs, and fishes of different kinds. They do not raise crops of spelt or of any other grain. Their most common food is a certain root which they grind into a fairly good flour and which some of the natives call *iucha*, others *chambi*, and still others *ygnami*.<sup>1</sup> They very rarely eat flesh, with the exception of human flesh; and in this they are so inhuman and so savage as to outdo even the wild animals. Indeed, all the enemies whom they either kill or capture, without discriminating between the men and the women, are relished by them with such savageness that nothing more barbarous and cruel can either be seen or heard of. Time and again it fell to my lot to see them engaged in this savage and brutal practice, while they expressed their wonder that we did not likewise eat our enemies. Your royal Majesty may rest assured on this point, that their numerous customs are all so barbarous that I can not describe them adequately here. Therefore, considering the many, many things I saw in my four voyages—things so entirely different from our customs and manners—I have prepared and com-

<sup>1</sup> The Italian text gives *iuca*, *cazabi*, and *ignami*.

## *The First Voyage*

pleted a work which I have entitled "The Four Voyages." In this book I have collected the greater part of the things I saw, and have described them as clearly as my small ability would permit. I have not, however, published it as yet. In this work, each topic is given more careful and individual attention, and therefore in the present pamphlet I shall merely touch upon them, making only general statements. And so I return to complete the account of our first voyage, from which I have made a short digression.

In the beginning of our voyage we did not see anything of great value except a few traces of gold, and this only because they pointed out to us several proofs of its existence in the soil. I suppose we should have learned much more, had we been able to understand their language. In truth, this land is so happily situated that it could not be improved. We unanimously agreed, however, to leave it and to continue our voyage further. And so, keeping land always in sight, and tacking frequently, we visited many ports, in the meanwhile entering upon communications with many different tribes of those regions. After some days we made a certain harbor in which it pleased God to deliver us from a great danger.

As soon as we entered this harbor, we dis-

### *The First Voyage*

covered that their whole population, that is to say, the entire village, had houses built in the water, as at Venice. There were in all about twenty large houses, built in the shape of bells (as we have said above), and resting firmly upon strong wooden piles. In front of the doors of each house drawbridges had been erected, over which one could pass from one hut to another as if over a well-constructed road. As soon as the inhabitants of this settlement noticed us they were seized with great fear, and immediately raised the drawbridges to defend themselves against us, and hid themselves within their houses. While we were watching their actions with some degree of wonder, lo and behold about twelve of their boats (which are hollowed out of the trunk of a single tree) came over the water to meet us. The occupants of these boats looked at us and at our clothes with wonder, and rowed about us in every direction, but continued to examine us from a distance. We on our part were similarly observing them, making many signs of friendship to urge them to approach us without fear. But it was of no avail. Seeing their reluctance, we began to row in their direction. They did not await our arrival, but immediately fled to the shore, making signs to us that we should await their return, which (they signified) would be shortly. There-

## *The First Voyage*

upon they hurried to a nearby hill, returning thence accompanied by sixteen maidens. With these they embarked in the above-mentioned boats and straightway returned to us. Of the maidens, four were then placed in each one of our ships, a proceeding which, as your Majesty may well believe, astonished us not a little. Then they went back and forth among our ships with their canoes, and spoke to us in such kindly manner that we began to consider them our trusty friends. While all this was going on, behold a large crowd began to swim from their houses (already described) and to advance in our direction. Though they advanced further and further, and though they were now nearing our ships, we entertained not the slightest suspicion of their actions. At this point, however, we saw some old women standing at the doors of their houses, shouting wildly and filling the air with their cries, and tearing their hair in great distress. We now began to suspect that some great danger was threatening. Immediately the girls who had been placed on board our ships leaped into the sea. Those who were in the canoes pulled off a short distance, drew their bows and began to make a vigorous attack upon us. Moreover, those who had started from their houses and were swimming over the sea toward us, were, each one of them, carrying a lance under

## *The First Voyage*

water. This was sure proof of their treachery, and we began not only to defend ourselves with spirit, but also to inflict serious injuries upon them. In fact, we wrecked and sank many of the canoes, with great loss of life to their occupants,—a loss which became even greater because the natives abandoned their canoes entirely and swam to the shore. About twenty of them were killed and many more were wounded. Of ours only five were injured, all of whom were restored to health, with the help of God. We managed to capture two of the girls and three men. Later we visited the houses of the settlement, and upon entering found them occupied only by two old women and a sick man. We did not set fire to the houses for this reason, that we feared lest our consciences would prick us. We then returned to the ships with our five captives and put them in irons, except the girls. At night, however, both girls and one of the men very shrewdly effected their escape.

On the following day we agreed to leave that port and to sail on along the coast. After a run of about eighty leagues we came to another tribe entirely different from the former in language and customs. We anchored the fleet and approached the shore in our small boats. Here we saw a crowd of about 4,000 persons on the beach. As soon as they realized that we were

## *The First Voyage*

about to land, they no longer remained where they were, but fled to the woods and forests, abandoning on the shore everything which they had had with them. Leaping upon the land, we advanced along a road leading to the forest about as far as a crossbow shot. We soon came upon many tents which had been pitched there by that tribe for the fishing season. Within them, many fires had been built for cooking their meals, and animals and fishes of various kinds were being roasted. Among other things we saw that a certain animal was being roasted which looked very much like a serpent, except for the wings which were missing. It looked so strange and so terrible that we greatly wondered at its wild appearance. Proceeding onward through their tents, we found many similar serpents, whose feet were tied and whose mouths were muzzled so that they could not open them, as is done with dogs and other wild animals that they may not bite. Their whole appearance was so savage that we, supposing them to be poisonous, did not dare approach them. They are like a young goat in size, and half as long again as an arm. Their feet are very large and heavy, and are armed with strong claws; their skin is varicolored; their mouth and face like those of a serpent. From the end of the nose to the tip of their tail they are covered (along

## *The First Voyage*

the back) with a kind of bristle, from which we decided that they were truly serpents. And yet the above-mentioned tribe eats them. That same tribe makes bread from the fishes which they catch in the sea, the process being as follows: First of all they place the fish in water and boil it for some time; then they pound it and crush it and make it into small cakes which they bake upon hot ashes and which they then eat. Upon tasting them we found them to be not at all bad. They have many other kinds of food, including different fruits and herbs, but it would take too long to describe them.

But to return to our story. Although the natives did not reappear from the woods to which they had fled, we did not take away any of their possessions, in order that we might increase their confidence in us. In fact, we left many small trifles in their tents, placing them where they would be seen, and at night returned to our ships. On the next day, when Titan began to rise above the horizon, we saw a countless multitude upon the shore. We immediately landed; and though the natives still appeared to be somewhat afraid of us, yet they mingled among us, and began to deal and to converse with us with complete security. They signified to us that they would be our friends, that the tents which we saw were not their real

## *The First Voyage*

houses, and that they had come to the shore to fish. Therefore they begged us to accompany them to their villages, assuring us that they wished to welcome us as friends. We were made to understand that the cause of the friendship which they had conceived for us was our arrest of those two prisoners, who turned out to be enemies of theirs. And so, seeing the persistence with which they asked us, twenty-three of us decided to go with them, fully armed and with the firm resolve to die valiantly if need be.

After remaining there for three days, we marched inland with them for three leagues and came to a village consisting of but nine habitations. There we were received with such numerous and such barbarous ceremonies that my pen is too weak to describe them. For instance, we were welcomed with dances and with songs, with lamentations mingled with cries of joy and of happiness, with much feasting and banqueting. Here we rested for the night, and the natives most generously offered us their wives. . . . After we had remained that night and half of the next day, a large and wondering crowd came to look at us, without hesitation and fear. Their elders now asked us to go with them to their other villages situated farther inland, to which we again agreed. It is not an easy task to recount the honors which they

## *The First Voyage*

showered upon us here. In short, we went about in their company for nine whole days, visiting very many of their settlements, with the result that (as we afterward learned), our companions whom we had left in the ships began to be very anxious about us and to entertain serious fears for our safety. And so, after having penetrated about eighteen leagues into the interior of the country, we decided to make our way back to the ships. On our return a great crowd of men and women met us and accompanied us all the way to the sea,—a fact which is of itself very remarkable. But there is more. Whenever it happened that one of our company would lag behind from weariness, the natives came to his assistance and carried him most zealously in those nets in which they sleep. In crossing the rivers, too (which in their country are very numerous and very large), they were so careful with the contrivances they employed that we never feared the slightest danger. Moreover, many of them, laden down with their gifts, which they carried in those same nets, accompanied us. The gifts consisted of feathers of very great value, of many bows and arrows, and of numberless parrots of different colors. Many others, also, were bringing their household goods and their animals. In fine, they all reckoned themselves fortunate if, in crossing a

## *The First Voyage*

stream, they could bear us on their shoulders or on their backs.

However, we hastened to the sea as quickly as possible. As we were about to embark in our boats, so great was the crowding of the natives in their attempt to accompany us still further and to embark with us and visit our ships, that our boats were almost swamped by the load. We took on board, however, as many as we could accommodate and brought them to our ships. In addition to those whom we had on board, so many of them accompanied us by swimming that we were somewhat troubled by their approach ; for, about a thousand of them boarded our ships (naked and unarmed though they were), and examined with wonder our equipment and arrangements and the great size of the ships themselves. And then a laughable thing happened. We desired to shoot off some of our war engines and artillery, and therefore put a match to the guns. These went off with such a loud report that a large portion of the natives, upon hearing this new thunder, leaped into the water and swam away, like frogs sitting on the bank, which jump into the bottom of the marsh and hide the moment they are startled by a noise. In this way acted the natives. Those natives who had fled to another portion of the ships were so thoroughly fright-

## *The First Voyage*

ened that we repented and chid ourselves for what we had done. But we quickly reassured them, and did not permit them to remain any longer in ignorance, explaining that it was with these guns that we killed our enemies.

After entertaining them the whole day upon our ships, we warned them to depart because we intended to sail during the night; whereupon they took leave of us in a most friendly and kindly manner. We saw and learned very many customs of this tribe and region, but it is not my intention to dwell upon them here. Your Majesty will be in a position to learn later of all the more wonderful and noteworthy things I saw in each of my voyages; for I have collected them in one work written after the manner of a geographical treatise and entitled "The Four Voyages." In this work I give individual and detailed descriptions, but I have not yet offered it to the public because I must still revise it and verify my statements.

That land is very thickly populated, and everywhere filled with many different animals, very unlike those of our country. In common with us they have lions, bears, stags, pigs, goats, and fallow deer, which are, however, distinguished from ours by certain differences. They are entirely unacquainted with horses, mules, asses, dogs, and all kinds of small cattle (such as

## *The First Voyage*

sheep and the like), and cows and oxen. They have, however, many species of animals which it would be difficult to name, all of them wild and of no use to them in their domestic affairs. But why say more? The land is very rich in birds, which are so numerous and so large, and have plumes of such different kinds and colors, that to see and describe them fills us with wonder. The climate, moreover, is very temperate and the land fertile, full of immense forests and groves, which are always green, for the leaves never fall. The fruits are countless and entirely different from ours. The land itself is situated in the torrid zone, on the edge of the second climate, precisely on the parallel which marks the tropic of Cancer, where the Pole rises twenty-three degrees above the horizon. During this voyage many came to look at us, marveling at the whiteness of our skin. And when they asked us whence we came, we answered that we had descended from heaven to pay the earth a visit, a statement which was believed on all sides. We established in this land many baptismal fonts or baptisteries, in which they made us baptize countless numbers, calling us in their own tongue "charaibi,"—that is to say, "men of great wisdom." The country itself is called by them "Parias."

Later we left that harbor and land, sailing

### *The First Voyage*

along shore and keeping land always in view. We sailed for 870 leagues, making many tacks and treating and dealing with numerous tribes. In many places we obtained gold, but not in great quantities ; for it sufficed us for the present to discover those lands and to know that there was gold therein. And since by that time we had already been thirteen months on our voyage, and since the tackle and rigging were very much the worse for wear and the men were reduced by fatigue, we unanimously agreed to repair our small boats (which were leaking at every point) and to return to Spain. Just as we had reached this conclusion, we neared and entered the finest harbor in the world. Here we again met a countless multitude, who received us in a very friendly manner. On the beach we built a new boat with material taken from the other ships and from barrels and casks, placed upon dry land our rigging and military engines, which were almost rotting away in the water, lightened our ships and drew them up on land. Then we repaired them and patched them, and gave them a thorough overhauling. During all these occupations the inhabitants of the country gave us no slight assistance. Indeed, they offered us provisions out of friendship and unasked, so that we consumed very little of our own supplies. This we considered a great boon,

## *The First Voyage*

for our supplies at this stage were rather too meager to enable us to reach Spain without stinting ourselves.

We remained in that port thirty-seven days, frequently visiting the villages in company with the natives and being treated with great respect by each and every one of them. When we at last expressed our intention to leave that harbor and to resume our voyage, the natives complained to us that there was a certain savage and hostile tribe, which, at a certain time of the year, came over the sea to their land, and either through treachery or through violence killed and devoured a great number of them. They added that others were led off as prisoners to the enemy's country and home, and that they could not defend themselves against these enemies, making us understand that that tribe inhabited an island about one hundred leagues out at sea. They related their story to us in such plaintive tones that we took pity on them and believed them, promising that we should exact punishment for the injuries inflicted upon them. Whereat they greatly rejoiced and of their own accord offered to accompany us. We refused for several reasons, agreeing to take seven with us on the following condition: that at the close of the expedition they should return to their country alone and in their own canoes,

## *The First Voyage*

for we did not by any means intend to take the trouble of bringing them back. To this condition they gladly assented, and so we took leave of the natives, who had become our dear friends, and departed.

We sailed about in our refitted ships for seven days, with the wind blowing between the north-east and east. At the end of this period we reached many islands, of which some were inhabited and others not. We thereupon approached one of them; and while endeavoring to anchor our ships we saw a great horde of people on the island, which the inhabitants call *Ity*. After examining them for some time, we manned the small boats with brave men and three guns, and rowed nearer the shore, which was filled with 400 men and very many women, all of whom (like the others) went about naked. The men were well built, and seemed very warlike and brave, for they were all equipped with their usual arms, namely, the bow and arrow and the lance. Very many of them, moreover, bore round shields or even square shields, with which they defended themselves so skillfully that they were not hindered thereby in shooting their arrows.

When we had come in our boats to within a bowshot of the land, they leaped into the sea and shot an infinite number of arrows at us,

## *The First Voyage*

endeavoring might and main to prevent our landing. Their bodies were all painted over with many colors, and were decorated with birds' feathers. The natives whom we had taken with us noticed this and informed us that whenever the men are so painted and adorned with plumes they are ready for battle. They were, however, so successful in preventing our landing that we were compelled to direct our stone-hurling machines against them. When they heard the report and noticed its power (for many of them had fallen dead), they fled to the shore. We then held a consultation, and forty-two of us agreed to land after them and valiantly to engage in battle with them. This we did. We leaped to the shore fully armed; and the natives made such stout resistance that the battle raged ceaselessly for almost two hours with varying fortune. We gained a signal victory over them, but only a very few of the natives were killed, and not by us but by our cross-bowmen and gunners, which was due to the fact that they very shrewdly avoided our spears and swords. But at last we made a rush upon them with such vigor that we killed many with the points of our swords. When they saw this, and when very many had been killed and wounded, they turned in flight to the woods and forests, leaving us masters of the field. We did

### *The First Voyage*

not wish to pursue them any further that day because we were too fatigued and preferred to make our way back to our ships. And the joy of the seven who had come with us from the mainland was so great that they could scarcely restrain themselves.

Early the next day we saw a great horde of people approaching through the island, playing on horns and other instruments which they use in war, and again painted and wearing birds' feathers. It was a wonderful sight to see. We again discussed what their plans might be, and decided upon the following course of action: to gather our forces quickly if the natives offered us any hostility; to keep constant watch in turns and in the meantime to endeavor to make them our friends, but to treat them as enemies if they rejected our friendship; and finally to capture as many of them as we could and make and keep them as our slaves forever. And so we gathered upon the shore in hollow formation, armed to the teeth. They, however, did not oppose the slightest resistance to our landing, I suppose on account of their fear of our guns. Upon disembarking, fifty-seven strong, we advanced against them in four divisions (each man under his respective captain), and engaged in a long hand-to-hand combat with them.

## *The First Voyage*

After a long and severe struggle, during which we inflicted great loss upon them, we put the rest to flight and pursued them as far as one of their settlements. Here we made twenty-five prisoners, set fire to the village, and returned to the ships with our captives. The losses of the enemy were very many killed and wounded; on our side, however, only one man was killed, and twenty-two were wounded, all of whom have regained their health, with the help of God.

Our arrangements for the return to our fatherland were now complete. To the seven natives who had come with us from the mainland (five of whom had been wounded in the aforesaid battle), we gave seven prisoners, three men and four women. And they, embarking in a boat which they had seized on the island, returned home filled with great joy and with great admiration for our strength. We set sail for Spain, and at last entered the harbor of Cadiz with our two hundred and twenty-two prisoners, on the 25th day of October, in the year of Our Lord 1499, where we were received with great rejoicing, and where we sold all our prisoners.

And these are what I have deemed to be the more noteworthy incidents of my first voyage.

## *The Second Voyage*

### THE SECOND VOYAGE

THE following pages contain an account of my second voyage and of the noteworthy incidents which befell me in the course of that voyage.

We set sail from the harbor of Cadiz, in the year of Our Lord 1489 (sic), on a May day. As soon as we cleared the harbor, we shaped our course for the Cape Verde Islands; and passing in sight of the islands of the Grand Canary group, we sailed on until we reached the island called Fire Island. Here we took on supplies of fuel and of water, and resumed our voyage with a southwest wind. After nineteen days we reached a new land, which we took to be the mainland. It was situated opposite to that land of which mention has been made in our first voyage; and it is within the Torrid Zone, south of the equinoctial line, where the pole rises five degrees above the horizon beyond every climate. The land is 500 leagues to the southwest of the above-mentioned islands.

We discovered that in this country the day is of the same length as the night on the 27th of June, when the sun is on the Tropic of Cancer. Moreover, we found that the country is, in great measure, marshy and that it abounds in large rivers, which cause it to have very thick vegetation and very high and straight trees. In fact,

## *The Second Voyage*

the growth of vegetation was such that we could not at the time decide whether or not the country was inhabited. We stopped our ships and anchored them, and then lowered some of our small boats in which we made for the land. We hunted long for a landing, going here and there and back and forth, but, as has already been said, found the land everywhere so covered with water that there was not a single spot that was not submerged. We saw, however, along the banks of those rivers many indications that the land was not only inhabited, but indeed very thickly populated. We could not disembark to examine such signs of life more closely, and therefore agreed to return to our ships, which we did. We weighed anchor and sailed along the coast with the wind blowing east and southeast, trying time and again, in a course of more than forty leagues, to penetrate into the island itself. But all to no purpose. For we found in that part of the ocean so strong a current flowing from southeast to northwest that the sea was quite unfit for navigation. When we discovered this difficulty, we held a council and determined to turn back and head our ships to the northwest. So we continued to sail along shore and finally reached a body of water having an outer harbor and a most beautiful island at the entrance.

## *The Second Voyage*

We sailed across the outer harbor that we might enter the inner haven. In so doing, we noticed a horde of natives on the aforesaid island, about four leagues inland from the sea. We were greatly pleased and got our boats ready to land. While we were thus engaged, we noticed a canoe coming in from the open sea with many persons on board, which made us resolve to attack them and make them our prisoners. We therefore began to sail in their direction and to surround them, lest they might escape us. The natives in their turn bent to their paddles and, as the breeze continued to blow but moderately, we saw them raise their oars straight on high, as if to say that they would remain firm and offer us resistance. I suppose that they did this in order to rouse admiration in us. But when they became aware that we were approaching nearer and nearer, they dipped their paddles into the water and made for the land. Among our ships there was a very swift boat of about forty-five tons, which was so headed that she soon got to windward of the natives. When the moment for attacking them had come, they got ready themselves and their gear and rowed off. Since our ship now went beyond the canoe of the natives, these attempted to effect their escape. Having lowered some boats and filled them with brave men, thinking that we would catch them,

## *The Second Voyage*

we soon bore down on them, but though we pursued them for two hours, had not our caravel which had passed them turned back on them they would have entirely escaped us. When they saw that they were hemmed in on all sides by our small boats and by the ship, all of them (about twenty in number) leaped into the water, albeit they were still about two leagues out at sea. We pursued them with our boats for that entire day, and yet we managed to capture only two of them, the rest reaching land in safety.

In the canoe which they had abandoned, there were four youths, who did not belong to the same tribe, but had been captured in another land. These youths had recently had their virile parts removed, a fact which caused us no little astonishment. When we had taken them on board our ships, they gave us to understand by signs that they had been carried off to be devoured, adding that this wild, cruel, and cannibal tribe were called "Cambali."

We then took the canoe in tow, and advanced with our ships to within half a league of the shore, where we halted and dropped our anchors. When we saw a very great throng of people roaming on the shore, we hastened to reach land in our small boats, taking with us the two men we had found in the canoe that we had attacked. The moment we set foot on dry land, they all

## *The Second Voyage*

fled in great fright to the groves near by and hid in their recesses. We then gave one of the captives permission to leave us, loading him with very many gifts for the natives with whom we desired to be friends, among which were little bells and plates of metal and numerous mirrors. We instructed him, furthermore, to tell the natives who had fled not to entertain any fear on our account, because we were greatly desirous of being their friends. Our messenger departed and fulfilled his mission so well that the entire tribe, about four hundred in number, came to us from out of the forest, accompanied by many women. Though unarmed, they came to where we were stationed with our small boats, and we became so friendly that we restored to them the second of the two men whom we had captured, and likewise sent instructions to our companions, in whose possession it was, to return to the natives the canoe which we had run down. This canoe was hollowed out of the trunk of a single tree, and had been fashioned with the greatest care. It was twenty-six paces long and two ells (bracchia) wide. As soon as the natives had recovered possession of their canoe and had placed it in a secure spot along the river bank, they unexpectedly fled from us and would no longer have anything to do with us. By such an uncivilized

## *The Second Voyage*

act, we knew them to be men of bad faith. Among them we saw a little gold, which they wore suspended from their ears.

We left that country, and after sailing about eighty leagues we found a safe anchorage for our ships, upon entering which we saw such numbers of natives that it was a wonderful sight. We immediately made friends with them and visited in their company many of their villages, where we were honorably and heartily welcomed. Indeed, we bought of them five hundred large pearls in return for one small bell, which we gave them for nothing.<sup>1</sup> In that land they drink wine made from fruits and seeds, which is like that made from chickpeas, or like white or red beer. The better kind of wine, however, is made from the choicest fruits of the myrrh tree. We ate heartily of these fruits and of many others that were both pleasant to the taste and nourishing, for we had arrived at the proper season. This island greatly abounds in what they use for food and utensils, and the people themselves were well mannered and more peacefully inclined than any other tribe we met.

We spent seventeen days in this harbor very pleasantly, and each day a great number of

<sup>1</sup>So the Latin text, which seems to be in error. The Italian version having, "which they gave us for nothing."

## *The Second Voyage*

people would come to us to marvel at our appearance, the whiteness of our skins, our clothes and weapons, and at the great size of our ships. Indeed, they even told us that one of the tribes hostile to them lived further to the west, and possessed an infinite number of pearls; and that those pearls which they themselves possessed had been taken from these enemies in the course of wars which they had waged against them. They gave us further information as to how the pearls were fished and how they grew, all of which we found to be true, as your Majesty will learn later on.

We left that harbor and sailed along the coast, on which we always saw many people. Continuing on our course, we entered a harbor for the purpose of repairing one of our ships. Here again we saw many natives, whom we could neither force nor coax to communicate with us in any way. For, if we made any attempt to land, they resisted most desperately; and if they could not withstand our attack, they fled to the woods, never waiting for us to approach any nearer. Realizing their utter savageness, we departed. While we were thus sailing on, we saw an island fifteen leagues out at sea and resolved to visit it and learn whether or not it was inhabited. Upon reaching it we found it to be inhabited by a race of most

## *The Second Voyage*

animallike simplicity, and at the same time very obliging and kind, whose rites and customs are the following:

### ON THE RITES AND CUSTOMS OF THIS TRIBE.

They were animallike in their appearance and actions, and had their mouths full of a certain green herb which they continually chewed upon as animals chew their cud, with the result that they could not speak. Moreover, each one of them had suspended from his neck two small dried gourds, one of which contained a supply of that herb which they were chewing, while the other contained a kind of white flour resembling plaster or white lime. Every now and then they would thrust into the gourd filled with flour a small stick whose end they had moistened in their mouths. By so doing they managed to gather some of the flour and put it into their mouths, powdering with this flour that herb which they were already chewing. They repeated this process at short intervals; and though we wondered greatly, we could not see any reason for their so doing, nor could we understand their secret.

This tribe came to us and treated us as familiarly as if they had frequently had dealings with us and as if they had long been friendly with us. We strolled with them along the shore, talking

## *The Second Voyage*

the while, and expressed our desire to drink some fresh water. To which they answered, by signs, that there was none in their country, offering us in its stead some herb and flour such as they were chewing. We now understood that since their country lacked water, they chewed that herb and flour to quench their thirst. And so it happened that, though we walked along that shore in their company for a day and a half, we never came across any spring water, and learned that such water as they did drink was the dew which gathered upon certain leaves having the shape of a donkey's ears. During the night these leaves were filled with dew, of which the people then drank, and it is very good. But in many places these leaves are not found.

This tribe is entirely unacquainted with the solid products of the earth, and live chiefly on the fish which they catch in the sea. Indeed there are many expert fishermen among them, and their waters abound in fish, of which they offered us many turtles and many other most excellent varieties. The women of the tribe, however, do not chew the herb as the men do; in its place, each one of them carries a single gourd filled with water, of which they partake from time to time. They do not have villages composed of individual houses, nor do they have even small huts. Their only shelter is made of

## *The Second Voyage*

large leaves, which serve indeed to protect them against the heat of the sun, but are not a sufficient protection against the rains, from which it may be deduced that there is little rain in that country. When they come down to the sea to fish, each one brings with him a leaf so large that, by fixing one end of it in the ground and then turning the leaf to follow the sun, he procures underneath its shade ample relief from the great heat. In this island, finally, there are countless species of animals, all of which drink the water of the marshes.

Seeing, however, that there was nothing to be gained on that island, we left it and found another one. We landed and started to search for some fresh water to drink, believing the island to be uninhabited because we had seen no one as we approached it. But as we were walking along the shore, we came upon some very large footprints, from which we judged that, if the other members of the body were in proportion to the size of the feet, the inhabitants must be very large indeed. Continuing our walk along the sands, we discovered a road leading inland, along which nine of us decided to go to explore the island, because it did not seem to be very large nor very thickly populated. After advancing along that road about a league, we saw five houses situated in a valley

## *The Second Voyage*

and apparently inhabited. Entering them we found five women, two of them old and three young; and all of them were of such large and noble stature that we were greatly astonished. As soon as they laid eyes upon us they were so overcome with surprise that they had no strength left for flight. Thereupon the old woman addressed us soothingly in their own tongue, and, gathering in one hut, offered us great quantities of food. All of them, in truth, were taller than a very tall man; indeed, they were as tall as Francesco degli Albizi, and better knit and better proportioned than we are. When we had observed all this, we agreed to seize the young girls by force and to bring them to Castile as objects of wonder.

While we were still deliberating, behold about thirty-six men began to file through the door of the house, men much larger than the women and so magnificently built that it was a joy to see them. These men caused us such great uneasiness that we considered it safer to return to our ships than to remain in their company. For they were armed with immense bows and arrows, and with stakes and staffs the size of long poles. As soon as they had all entered, they began to talk among themselves as if plotting to take us prisoners, upon seeing which we, too, held a consultation. Some were

## *The Second Voyage*

of the opinion that we should fall upon them just where they were, within the hut itself; others disapproved of this entirely, and suggested that the attack be made out of doors and in the open; and still others declared that we should not force an engagement until we learned what the natives decided to do. During the discussion of these plans we left the hut disguising our feelings and our intentions, and began to make our way back to the ships. The natives followed at a stone's throw, always talking among themselves. I believe, however, that their fear was no less than ours; for, although they kept us in sight, they remained at a distance, not advancing a single step unless we did likewise. When, however, we had reached the ships and had boarded them in good order, the natives immediately leaped into the sea and shot very many of their arrows after us. But now we had not the slightest fear of them. Indeed, rather to frighten than to kill them, we shot two of our guns at them; and upon hearing the report they hastily fled to a hill nearby. Thus it was that we escaped from them and departed. These natives, like the others, also go about naked; and we called the island the Island of the Giants, on account of the great size of its inhabitants.

We continued our voyage further, sailing a

## *The Second Voyage*

little further off shore than before and being compelled to engage with the enemy every now and then because they did not want us to take anything out of their country. By this time thoughts of revisiting Castile began to enter our minds, particularly for this reason, that we had now been almost a year at sea and that we had very small quantities of provisions and other necessities left. Even what still remained was all spoiled and damaged by the extreme heat which we had suffered. For, ever since our departure from the Cape Verde Islands, we had continually sailed in the Torrid Zone, and had twice crossed the equator, as we have said above.

While we were in this state of mind, it pleased the Holy Spirit to relieve us of our labors. For, as we were searching for a suitable haven wherein to repair our ships, we reached a tribe which received us with the greatest demonstrations of friendship. We learned, moreover, that they were the possessors of countless large Oriental pearls. We therefore remained among them forty-seven days, and bought 119 marcs of pearls at a price which, according to our estimation, was not greater than forty ducats, for we gave them in payment little bells, mirrors, bits of crystals, and very thin plates of electrum. Indeed, each one would give all the pearls he had for one little bell. We also learned from

## *The Second Voyage*

them how and where the pearls were fished, and they gave us several of the shells in which they grow. We bought some shells in addition, finding as many as 130 pearls in some, and in others not quite so many. Your Majesty must know that unless the pearls grow to full maturity and of their own accord fall from the shells in which they are born, they cannot be quite perfect. Otherwise, as I have myself found by experience time and again, they soon dry up and leave no trace. When, however, they have grown to full maturity, they drop from the fleshy part into the shell, except the part by which it hung attached to the flesh; and these are the best pearls.

At the end of the forty-seven days, then, we took leave of that tribe with which we had become such good friends, and set sail for home on account of our lack of provisions. We reached the island of Antiglia, which Christopher Columbus had discovered a few years before. Here we remained two months and two days in straightening out our affairs and repairing our ships. During this time we endured many annoyances from the Christians settled on that island, all of which I shall here pass over in silence that I may not be too prolix. We left that island on the 27th of July, and after a voyage of a month and a half we at last entered

### *The Third Voyage*

the harbor of Cadiz on the 8th of September, where we were received with great honor.

And so ended my second voyage, according to the will of God.

#### THE THIRD VOYAGE

I HAD taken up my abode in Seville, desiring to rest myself a little, to recover from the toils and hardships endured in the voyages described above, intending finally to revisit the land of pearls. But Fortune was by no means done with me. For some reason unknown to me she caused his most serene Lordship, Manuel, King of Portugal, to send me a special messenger bearing a letter which urgently begged me to go to Lisbon as soon as possible, because he had some important facts to communicate to me. I did not even consider the proposition, but immediately sent word by the same messenger that I was not feeling very well and in fact was ill at that moment; adding that, if I should regain my health and if it should still please His Royal Majesty to enlist my services, I should gladly undertake whatever he wished. Whereupon the King, who saw that he could not bring me to him just then, sent to me a second time, commissioning Giuliano Bartolomeo Giocondo<sup>1</sup>,

<sup>1</sup> Probably a relative of Fra Giovanni, a Dominican, later Franciscan friar, architect, and archæologist, associated with Raphael and Sangallo in the erection of St. Peter's, builder of a bridge across the Seine and collector of more than 2,000 ancient inscriptions (1430?-1515?).

### *The Third Voyage*

then in Lisbon, to leave no stone unturned to bring me back to the King. Upon the arrival of the said Giuliano I was moved by his entreaties to return with him to the King—a decision which was disapproved of by all those who knew me. For I was leaving Castile, where no small degree of honor had been shown me and where the King himself held me in high esteem. What was even worse was that I departed without taking leave of my host. I soon presented myself before King Manuel, who seemed to rejoice greatly at my arrival. He then repeatedly asked me to set out with three ships which had been got ready to start in search of new lands. And so, inasmuch as the entreaties of Kings are as commands, I yielded to his wishes.

#### THE START OF THE THIRD VOYAGE

WE set sail in three ships from the harbor of Lisbon, on the 10th of May, 1501, directing our course toward the islands of the Grand Canary. We sailed along in sight of these islands without stopping, and continued our westward voyage along the coast of Africa. We delayed three days in these waters, catching a great number of species of fish called *Parghi*. Proceeding thence we reached that region of Ethiopia which is called Besilicca<sup>1</sup>, situated in

<sup>1</sup>Now Goree.

### *The Third Voyage*

the Torrid Zone, within the first climate, and at a spot where the North Pole rises fourteen degrees above the horizon. We remained here eleven days to take on supplies of wood and of water, because it was my intention to sail southward through the Atlantic Ocean. We left that harbor of Ethiopia and sailed to the southwest for sixty-seven days, when we reached an island 700 leagues to the southwest of the above-mentioned harbor. During these days we encountered worse weather than any human being had ever before experienced at sea. There were high winds and violent rainstorms which caused us countless hardships. The reason for such inclement weather was that our ships kept sailing along the equinoctial line, where it is winter in the month of June and the days are as long as the nights, and where our own shadows pointed always to the south.

At last it pleased God to show us new land on the 17th of August. We anchored one league and a half out at sea, and then, embarking in some small boats, we set out to see whether or not the land was inhabited. We found that it was thickly inhabited by men who were worse than animals, as Your Royal Majesty will learn forthwith. Upon landing we did not see any of the natives, although from many signs which we noticed we concluded that the country

### *The Third Voyage*

must have many inhabitants. We took possession of the coast in the name of the most serene King of Castile, and found it to be a pleasant and fruitful and lovely land. It is five degrees south of the Equator. The same day we returned to our ships; and since we were suffering from the lack of fuel and water, we agreed to land again the following day and provide ourselves with what was necessary. Upon landing we saw on the topmost ridge of a hill many people who did not venture to descend. They were all naked and similar in both appearance and color to those we had met in the former voyages. Though we did our best to make them come down to us and speak with us, we could not inspire them with sufficient confidence. Seeing their obstinacy and waywardness, we returned to our ships at night, leaving on the shore (as they looked on) several small bells and mirrors and other such trifles.

When they saw that we were far out at sea, they came down from the mountain to take the things we had left them, and showed great wonder thereat. On that day we took on a supply of water only. Early in the morning of the next day, as we looked out from our ships, we saw a larger number of natives than before, building here and there along the shore fires which made a great deal of smoke. Supposing

### *The Third Voyage*

that they were thus inviting us, we rowed to the land. We now saw that a great horde of natives had collected, who, however, kept far away from us, making many signs that we should go with them into the interior. Wherefore two of our Christians declared themselves ready to risk their lives in this undertaking and to visit the natives in order to see for themselves what kind of people they were and whether they possessed any riches or aromatic spices. They begged the commander of the fleet so earnestly that he gave his consent to their departure. The two then prepared themselves for the expedition, taking along many trifles, for barter with the natives, and left us, with the understanding that they should make sure to return after five days at the most, as we should wait for them no longer.

They accordingly began their journey inland, and we returned to our ships, where we waited for eight whole days. On almost each of these days a new crowd would come to the shore, but never did they show a desire to enter into conversation with us. On the seventh day, while we again were making our way to the shore, we discovered that the natives had brought all their wives with them. As soon as we landed they sent many of their women to talk with us. But even the women did not trust us sufficiently. While we were waiting for them to approach,

### *The Third Voyage*

we decided to send to them one of our young men who was very strong and agile ; and then, that the women might be the less fearful, the rest of us embarked in our small boats. The young man advanced and mingled among the women ; they all stood around him, and touched and stroked him, wondering greatly at him. At this point a woman came down from the hill carrying a big club. When she reached the place where the young man was standing, she struck him such a heavy blow from behind that he immediately fell to the ground dead. The rest of the women at once seized him and dragged him by the feet up the mountain, whereupon the men who were on the mountain ran down to the shore armed with bows and arrows and began to shoot at us. Our men, unable to escape quickly because the boats scraped the bottom as they rowed, were seized with such terror that no one had any thought at the moment of taking up his arms. The natives had thus an opportunity of shooting very many arrows at us. Then we shot four of our guns at them ; and although no one was hit, still, the moment they heard the thunderous report, they all fled back to the mountain. There the women, who had killed the youth before our eyes, were now cutting him in pieces, showing us the pieces, roasting them at a large

### *The Third Voyage*

fire which they had made, and eating them. The men, too, made us similar signs, from which we gathered that they had killed our two other Christians in the same manner and had likewise eaten them. And in this respect at least we felt sure that they were speaking the truth.

We were thoroughly maddened by this taunting and by seeing with our own eyes the inhuman way in which they had treated our dead. More than forty of us, therefore, determined to rush to the land and avenge such an inhuman deed and such bestial cruelty. But the commander of our ship would not give his consent; and so, being compelled to endure passively so serious and great an insult, we departed with heavy hearts and with a feeling of great shame, due to the refusal of our captain.

Leaving that land we began to sail between the East and South because the coast line ran in that direction. We made many turns and landings, in the course of which we did not see any tribe which would have any intercourse with us or approach us. We sailed at last so far that we discovered a new land stretching out toward the southwest. Here we rounded a cape (to which we gave the name St. Vincent) and continued our voyage in a southwesterly direction. This Cape St. Vincent is 150 leagues to the

### *The Third Voyage*

southeast of the country where our Christians perished, and eight degrees south of the Equator. As we were sailing along in this manner, one day we noticed on the shore a great number of natives gazing in wonder at us and at the great size of our ships. We anchored in a safe place and then, embarking in our small boats, we reached land. We found the people much kinder than the others; for our toilsome efforts to make them our friends were at last crowned with success. We remained five days among them trading and otherwise dealing with them, and discovered large hollow reed-stalks, most of them still green, and several of them dry on the tops of the trees. We decided to take along with us two of this tribe that they might teach us their tongue; and, indeed, three of them volunteered to return to Portugal with us.

But, since it wearies me to describe all things in detail, may it suffice your Majesty to know that we left that harbor, sailing in a south-westerly direction, keeping always within sight of land, entering many harbors, making frequent landings, and communicating with many tribes. In fact, we sailed so far to the south that we went beyond the Tropic of Capricorn. When we had gone so far south that the South Pole rose thirty-two degrees above the horizon, we

### *The Third Voyage*

lost sight of the Lesser Bear, and the Great Bear itself appeared so low as to be scarcely visible above the horizon. We were then compelled to guide ourselves by the stars of the South Pole, which are far more numerous and much larger and more brilliant than the stars of our Pole. I therefore made a drawing of very many of them, especially of those of the first magnitude, together with the declinations of their orbits around the South Pole, adding also the diameters and semi-diameters of the stars themselves—all of which can be readily seen in my “Four Voyages.” In the course of the voyage from Cape St. Augustine, we sailed 700 leagues—100 toward the west and 600 toward the southwest. Should any one desire to describe all that we saw in the course of that voyage, paper would not suffice him. We did not, however, discover anything of great importance with the exception of an infinite number of cassia trees and of very many others which put forth a peculiar kind of leaf. We saw, in addition, very many other wonderful things which it would be tedious to enumerate.

We had now been on our voyage for almost ten months; and, seeing that we discovered no precious metals, we decided to depart thence and to roam over another portion of the sea. As soon as we had come to this conclusion, the

### *The Third Voyage*

word went to each one of our ships that whatever I should think necessary to command in conducting this voyage should be fulfilled to the letter. I therefore immediately gave a general order that all should provide themselves with fuel and water for six months, for the different captains had informed me that their ships could remain at sea only that much longer.

As soon as my orders had been obeyed, we left that coast and began our voyage to the south on the 13th of February, in other words, when the sun was approaching the equinoctial line and returning to this Northern Hemisphere of ours. We sailed so far that the South Pole rose fifty-two degrees above the horizon, and we could no longer see the stars of the Great or the Lesser Bear. For we were then (the 3rd of April) 500 leagues distant from that harbor from which we had begun our southward voyage. On this day so violent a storm arose that we were forced to gather in every stitch of canvas and to run on with bare masts, the southwest wind blowing fiercely and the sea rolling in great billows, in the midst of a furious tempest. The gale was so terrible that all were alarmed in no slight degree. The nights, too, were very long. For on the 7th of April, when the sun was near the end of Aries, we found that the night was fifteen hours long. Indeed, as

### *The Third Voyage*

your Majesty is very well aware, it was the beginning of winter in that latitude. In the midst of this tempest, however, on the 2nd of April, we sighted land, and sailed along shore for nearly twenty leagues. But we found it entirely uninhabited and wild, a land which had neither harbors nor inhabitants. I suppose it was for the reason that it was so cold there that no one could endure such a rigid climate. Furthermore, we found ourselves in such great danger and in the midst of so violent a storm that the different ships could scarcely sight one another. Wherefore the commander of the fleet and I decided that we should signal to all our shipmates to leave that coast, sail out to sea, and make for Portugal.

This plan proved to be a good and necessary one; for, had we remained there one single night longer, we should all have been lost. The day after we left, so great a storm arose that we feared we should be entirely submerged. For this reason we then made many vows to go on pilgrimages and performed other ceremonies, as is customary with sailors. The storm raged round us for five days, during which we could never raise our sails. During the same time we went 250 leagues out to sea, always getting nearer and nearer the equinoctial line, where both sea and sky became more moderate. And

### *The Third Voyage*

here it pleased God on high to deliver us from the above-mentioned dangers. Our course was shaped to the north and northeast, because we desired to make the coast of Ethiopia, from which we were then distant 1,300 leagues, sailing through the Atlantic Ocean. By the grace of God we reached that country on the 10th of May. We rested there for fifteen days upon a stretch of coast facing the south and called Sierra Leone. Then we took our course toward the Azores, which are 750 leagues from Sierra Leone. We reached them about the end of July and again rested for fifteen days. We then set sail for Lisbon, from which we were 300 leagues to the west. And at last, in the year 1502, we again entered the port of Lisbon, in good health as God willed, with only two ships. The third ship we had burned at Sierra Leone, because she was no longer seaworthy.

In this third voyage, we remained at sea for nearly sixteen months, during eleven of which we sailed without being able to see the North Star nor the stars of the Great and the Lesser Bear. At that time we steered by the star of the South Pole.

What I have related above I have deemed the most noteworthy events of my third voyage.

## *The Fourth Voyage*

### THE FOURTH VOYAGE

I MUST still relate what I saw in my third (sic) voyage. But, in truth, since I have already been tired out by the length of the preceding narratives, and since this voyage did not at all end as I had hoped, on account of an accident that befell us in the Atlantic Ocean, I may be permitted (I trust), to be somewhat brief.

We left Lisbon in six ships with the intention of exploring an island situated toward the horizon and known as Melcha. This island is famous for its wealth, because it is a stopping place for all ships coming from the Gangetic and Indian Seas, precisely as Cadiz is the port for all vessels going from east to west, or in the opposite direction, as is the case with those ships which sail hence for Calicut. This island of Melcha is further to the west than Calicut and more to the south, which we knew from the following fact: that it is situated within sight of the thirty-third degree of the Antarctic Pole.

And so, on the 10th of May, 1503, we set sail from Lisbon (as I have said above), and made for the Cape Verde Islands, where we took on some needed provisions and many other necessary stores. We remained there twelve days, and then set sail with a south wind, because the commander of the fleet, who was

### *The Fourth Voyage*

haughty and headstrong, issued orders that we should make for Sierra Leone, on the southern coast of Ethiopia. There was no necessity for this, and all of us were unanimously opposed to such a course; but he insisted upon it merely to impress upon us that he had been placed in command of us and the six ships. We made good speed, and just as we were at last coming within sight of our destination, so great and violent a tempest arose, and so heavy a gale began to rage, and Fortune became so unkind, that for four days we could not land in spite of the fact that we could see the coast during the whole of that time. Finally we were obliged to give up our attempts and to continue in what should have been our course from the beginning.

We therefore resumed our voyage with the Suduesius wind blowing (a wind which points between the south and the southwest), and sailed through those difficult seas for 300 leagues. In consequence we went across the Equator by almost three degrees, where land was seen by us twelve leagues off. We were greatly astonished at the sight. It was an island situated in the middle of the sea, very high and remarkable in appearance. It was no larger than two leagues in length by one in width. No man had ever been or lived on that island, and yet it

### *The Fourth Voyage*

was to us a most unfortunate island. Upon it the commander of our fleet lost his ship, all owing to his own obstinate mind and will. His ship struck upon a rock, sprung leaks, and sank during the night of St. Lawrence, the 10th of August. With the exception of the crew nothing was saved. The ship was of 300 tons, and the strength of our whole fleet lay in her.

While we were all exerting ourselves to see if we could not, perhaps, float her again, the above-mentioned commander ordered me (among other things) to go in a rowboat to the island in search of a good harbor where we might all draw up our ships in safety. That same commander, however, did not wish me to go with my own ship, because it was manned by nine sailors and was then busily engaged in assisting the endangered ship. He insisted that I go and find such a harbor, where he would restore my ship to me in person. Upon receiving these orders, I went to the island as he desired, taking with me about half the number of my sailors. The island was four leagues away, and hastening thither I discovered a very fine harbor where we might safely anchor our entire fleet. I had now discovered the harbor, and there I spent eight days waiting for the said commander and the rest of our company. I was greatly dis-

### *The Fourth Voyage*

turbed when they did not appear, and those who were with me became so alarmed that they could not be appeased in any way.

While we were in this state of anxiety, on the eighth day we saw a ship coming in over the sea. We at once set out to meet them in order that they might see us, feeling confident and at the same time hoping that they would take us with them to some better harbor. When we had gotten near and had exchanged greetings, those on board informed us that the commander's ship had been lost at sea, the crew alone being saved. Your Majesty can readily imagine the great anxiety which seized me at this report, when I realized that I was 1,000 leagues distant from Lisbon (to which I must needs return) in remote and far-off waters. Nevertheless, we resigned ourselves to the fate that had come upon us and determined to go on. First of all we returned to the island, where we gathered supplies of wood and water for the ship. The island, indeed, was quite uninhabited and most inhospitable; but it had a great deal of spring water, countless trees, and numberless land and sea birds, which were so tame that they permitted us to take them in our hands. We, therefore, took so many of them that we entirely filled one of the rowboats. The only other animals we discovered on that

### *The Fourth Voyage*

island were very large mice, lizards with forked tails, and several serpents.

When we had got our provisions on board, we set sail toward the south and southwest; for we had received orders from the King, that, unless some great danger made it impossible, we should follow in the path of our former voyage. Setting out, therefore, in this direction, we at last found a harbor which we called the Bay of All Saints. Indeed, God had granted us such favorable weather that in less than seventeen days we reached this port, which is 300 leagues distant from the above-mentioned island. In the harbor we found neither the commander-in-chief nor any one else of our company, though we waited for them for two months and four days. At the end of this period, seeing that no one arrived there, my companions and I decided to sail further along the coast. After sailing for 260 leagues, we entered a harbor where we determined to build an outpost. Having done so, we left behind in this fort the twenty-four Christians who had been the crew of the luckless ship of our commander-in-chief. We remained in that harbor five months, occupied in constructing the said fort and in loading our ships with brazil-wood. We tarried thus long because our sailors were few in number and because, owing to the lack of many necessary

### *The Fourth Voyage*

parts, our ships could not proceed further. But when all was done, we agreed to return to Portugal, to do which would require a wind between north and northeast.

We left in the fort the twenty-four Christians, giving them twelve guns and many more arms, and supplying them with provisions to last them six months. During our stay we had made friends with the tribes of that country, of which we have here made very little mention, notwithstanding that we saw great numbers of them and had frequent dealings with them. Indeed, we went about forty leagues into the interior in company with thirty of them. I saw on this expedition very many things which I now pass over in silence, reserving them for my book entitled "*The Four Voyages*." That country is eight degrees south of the equator and thirty-five degrees west of the meridian of Lisbon, according to our instruments.

We set sail hence with the Nornordensius wind (which is between the north and the northeast) shaping our course for the city of Lisbon. At last, praise be to God, after many hardships and many dangers we entered this harbor of Lisbon in less than seventy-seven days, on the 28th of June, 1504. Here we were received with great honor and with far greater festivities than one would think possible. The

## *The Fourth Voyage*

reason was that the entire city thought that we had been lost at sea, as was the case with all the rest of our fleet, who had perished owing to the foolish haughtiness of our commander-in-chief. Behold the manner in which God, the just Judge of all, rewards pride!

I am now living at Lisbon, not knowing what next your most serene Majesty will plan for me to do. As for myself, I greatly desire from now on to rest from my many hardships, in the meantime earnestly commending to your Majesty the bearer of the present letter.

AMERIGO VESPUCCI,  
in Lisbon.

Greetings from Walter Lud,  
Nicholas Lud,  
and Martin Ilacomilus

This tome has printed and hereafter oft  
Will others print, if Christ our helper be.



The town, St. Deodatus, named for thee  
And in the Vosgian Mountains reared aloft.

Finished April 25  
MDCVII





MARYGROVE COLLEGE LIBRARY



## DATE DUE

[illegible]

DEMCO 38-296



